



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

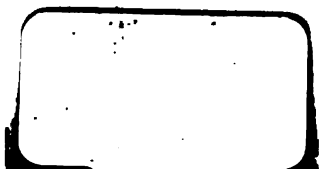
- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

Per. 2333

d. $\frac{16}{49(1) \cdot 15.}$



INDEX

TO THE

EXECUTIVE DOCUMENTS

OF THE

HOUSE OF REPRESENTATIVES

FOR THE

FIRST SESSION OF THE FORTY-NINTH CONGRESS,

1885-'86.

IN THIRTY-SEVEN VOLUMES.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1886.

7147 .

Per. 2333 d. $\frac{16}{15}$.15.

Digitized by Google

(6. 2. 2)

INDEX TO HOUSE EXECUTIVE DOCUMENTS.

CONTENTS OF THE VOLUMES.

VOL. 1..FOREIGN RELATIONS: No. 1, pt. 1.	VOL. 21..Nos. 5, 62, 116, and 176.
VOL. 2..WAR: No. 1, pt. 2, v. 1.	VOL. 22..No. 9.
VOL. 3..ENGINEERS: No. 1, pt. 2, v. 2, pt. 1.	VOL. 23..No. 18.
VOL. 4..ENGINEERS: No. 1, pt. 2, v. 2, pt. 2.	VOL. 24..No. 19.
VOL. 5..ENGINEERS: No. 1, pt. 2, v. 2, pt. 3.	VOL. 25..Nos. 21 to 50, inclusive, except Nos. 27, 29
VOL. 6..ENGINEERS: No. 1, pt. 2, v. 2, pt. 4.	31, and 49.
VOL. 7..ORDNANCE: No. 1, pt. 2, v. 3.	VOL. 26..No. 27.
VOL. 8..SIGNAL OFFICER: No. 1, pt. 2, v. 4.	VOL. 27..Nos. 29 and 81.
VOL. 9..NAVY: Parts 1 and 2, No. 1, pt. 3.	VOL. 28..No. 49.
VOL. 10..POSTMASTER-GENERAL: No. 1, pt. 4.	VOL. 29..No. 51.
VOL. 11..INTERIOR: No. 1, pt. 5, v. 1.	VOL. 30..Nos. 52 to 118, inclusive, except Nos. 62
VOL. 12..No. 1, pt. 5, v. 2.	and 116.
VOL. 13..No. 1, pt. 5, v. 3.	VOL. 31..Nos. 119 to 172, inclusive, except No. 153.
VOL. 14..No. 1, pt. 5, v. 4.	VOL. 32..No. 153.
VOL. 15..No. 1, pt. 5, v. 5.	VOL. 33..Nos. 173 to 280, inclusive, except Nos. 176
VOL. 16..No. 1, pt. 6.	and 253.
VOL. 17..No. 2, pt. 1.	VOL. 34..No. 253.
VOL. 18..No. 2, pt. 2.	VOL. 35..Nos. 281 to 377, inclusive, except No. 290.
VOL. 19..No. 3.	VOL. 36..No. 290.
VOL. 20..Nos. 4 to 20, inclusive, except Nos. 5, 9, 15,	VOL. 37..No. 378.
and 19.	

INDEX TO THE DOCUMENTS.

Subjects.	No.	Vol.
A.		
Accounts, annual report of unsettled.....	36	25
. report of Secretary of Treasury on balances due to and from Government on	363	35
Agriculture, annual report of Commissioner of, for 1885.....	378	37
Alaska, letter of Attorney-General relative to bond of United States marshal for	11	20
letter of Secretary of Treasury relative to accounts of secre- tary of	276	33
Alcoholic liquor traffic, letter of Secretary of Treasury relative to li- cense tax on retail liquor dealers.....	107	30
American Graphic Company, report of Secretary of War on claim of....	183	33
Anderson, Mary, message of President vetoing bill (H. R. 7436) to pen- sion	322	35
Andrews, C. C., letter of Secretary of Treasury on reimbursement of....	124	31
Animals. (See Cattle.)		
Appropriations, annual deficiency estimates.....	62	21
letter of Secretary of Treasury transmitting estimates for next fiscal year.....	5	21
supplemental estimates of	176	21
Arizona, letter of Secretary of Treasury relative to salary of surveyor- general of.....	106	30
Arkansas River, report of engineers on survey of	90	30
Army, annual report on expenditure of contingent fund of	77	30
appropriations for, letter of Secretary of War relative to.....	192	33

Subject.	No.	Vol.
Army, Artillery School, letter of Secretary of War relative to erecting building for	171	31
letter of Secretary of War relative to pay of enlisted men employed at Artillery School	108	30
letter of Secretary of War relative to organization of light batteries	115	30
mileage, letter of Secretary of War relative to	134	31
Arner, Philip, message of President vetoing bill (H. R. 6266) to pension Artillery School. (See Army, Fort Monroe.)	324	35
Asheville, N. C., message of President vetoing bill (H. R. 5546) to erect public building at	367	35
Attorney-General:		
Communications from—		
Annual report	7	20
Alaska, relative to bond of marshal in	11	20
Attorneys-General, relative to vouchers for cost of portraits of	229	33
Department of Justice, relative to contingent fund of	224	33
reports on trust funds in	271	33
Fees, relative to payment of, for returning evidence taken by commissioners	24	25
Fox and Wisconsin Rivers, report on awards for damages by improvement of	207	33
Jurors and witnesses, asking deficiency appropriation for	59	30
Substitutes, relative to employment of	155	31
Symons, Thomas, relative to claim of	177	33
B.		
Balances. (See Accounts, War Department.)		
Bangham, Eleanor C., message of President vetoing bill (H. R. 1582) for relief of	251	33
Barnes, Rachel, message of President vetoing bill (H. R. 9106) to pension	369	35
Bartholdi Statue of Liberty, message of President relative to inaugurating	232	33
estimate of appropriation for inaugurating	249	33
Beard, W. H., report of Secretary of Treasury on claim of	241	33
Beezeley, Louisa C., message of President vetoing bill (H. R. 576) for relief of	302	35
Bishop, William, message of President vetoing bill (H. R. 6688) for relief of	320	35
Block Island, letter of Secretary of War relative to submarine cable at	197	33
Boisé City, Idaho, letter of Secretary of Treasury relative to enlarging United States penitentiary at	54	30
Bonaveria, Paul, estimate of appropriation to pay claim of	198	33
Boon, Claik, message of President vetoing bill (H. R. 7931) to increase pension of	317	35
Boone, William, message of President vetoing bill (H. R. 472) to pension	332	35
Bordeaux International Congress, letter of Secretary of State relative to	205	33
Boston, letter of Secretary of Treasury relative to payment of silver dollars at subtreasury at	163	31
Boston Harbor, letter of Secretary of War relative to repairing seawall in	136	31
Bradley, Sallie A., message of President vetoing bill (H. R. 5394) to pension	337	35
Brooklyn, N. Y., letter of Secretary of Treasury relative to increasing cost of public building at	129	31
Buffalo, N. Y., estimate of appropriation for repair of custom-house at	218	33
Bureau of Engraving and Printing, letter of Secretary of Treasury relative to improving building of	170	31
Bureau of Labor, estimates of appropriations for	69	30
Bureau of Ordnance. (See Navy Department.)		
Bureau of Statistics, annual report and statements of Chief of (foreign commerce)	19	24
Butter. (See Oleomargarine.)		

Subjects.	No.	Vol.
C.		
Cadwalader, J. F., letter of Secretary of Treasury relative to account of Cape Orford, Oregon, estimate of appropriation for light-station at.....	67 138	30 31
Capitol Grounds, letter of Secretary of Treasury relative to appropriation for improving.....	104	30
Carroll, James, message of President vetoing bill (H. R. 4642) to pension Carson City, Nev., letter of Secretary of Treasury relative to appropriation for mint at.....	351 267	35 33
Cattle, consular reports on.....	51	29
Census, estimate of appropriation for.....	191	33
Central Pacific Railroad, estimate of appropriation to pay transportation claims of.....	270	33
estimates to pay for mail service.....	280	33
Chase, Charles A., message of President vetoing bill (H. R. 6372) to pension.....	300	35
Chinese immigration, message of President relative to.....	102	30
Civil Service, annual report of, Commission.....	140	31
letters relative to employment of substitutes from—		
Attorney-General.....	155	31
Postmaster-General.....	145	31
Secretary of Interior.....	168	31
Secretary of Navy.....	156	31
Secretary of State.....	160	31
Secretary of War.....	165	31
Secretary of Treasury.....	166	31
Claims, report of, allowed by Court of Claims.....	233	33
list of, allowed for which no appropriations made.....	210	33
estimate of appropriation for defending suits against United States for.....	211	33
report of Secretary of Treasury on, allowed.....	294	35
of claims allowed under exhausted appropriations.....	225	33
on claims allowed.....	70	30
report of Secretary of Treasury on war claims allowed under act of July 4, 1864.....	34	25
Clarksburg, W. Va., message of President relative to appropriation for public building at.....	366	35
Coal, report of Secretary of Treasury relative to drawbacks on.....	201	33
Coast defenses. (See Fortifications.)		
Coast Survey, annual report.....	18	23
annual report of expenditures.....	32	25
Coins and coinage, letter of Secretary of Treasury relative to silver balances and silver circulation.....	64	30
letter of Secretary of Treasury relative to reissue of nickel and copper coins.....	174	33
estimate of appropriation for transportation of minor coin.....	247	33
estimate of appropriation for storage and transportation of silver dollars.....	142	31
report of Secretary of Treasury relative to circulation of silver dollars.....	100	30
report of Secretary of Treasury relative to payment of silver dollars at Boston subtreasury.....	163	31
Collectors of customs, report of Secretary of Treasury relative to suits against.....	148	31
Commerce and navigation, message of President relative to House bill 4838, to abolish certain shipping fees.....	277	33
report of Secretary of State on foreign mercantile marine.....	172	31
Commercial relations, consular reports on.....	253	34
Commissioner of Internal Revenue, annual report.....	4	20
Compagnie Générale Transatlantique, letter of Secretary of State relative to claim of.....	206	33
Comptroller of the Currency, annual report of.....	3	19

Subjects.	No.	Vol.
Connelly, Julia, message of President vetoing bill (H. R. 6257) for relief of	304	35
Consular and diplomatic service, estimate of appropriations for salaries of alien consuls	239	33
estimate for rental of buildings in Tokio, Japan	213	33
estimate of deficiency appropriation for salaries of chargés d'affaires	261	33
Consular reports, trade and commerce of foreign countries	253	34
on cattle	51	20
Copyright, diplomatic correspondence relative to international	354	35
Corwin (revenue steamer), report on cruise of 1885	153	32
Cotton, James D., message of President vetoing bill (H. R. 6117) to pension	311	35
Court of Claims, estimate of appropriations for judgments of	275	33
Courts of United States, letter of Attorney-General asking deficiency appropriation for jurors and witnesses	59	30
letter of Attorney-General relative to payment of fees for returning evidence taken before commissioners	24	25
estimate of deficiency appropriations to pay witness and juror fees	244	33
appropriations for, additional estimates of	173	33
	184	33
	204	33
Cree Indians. (<i>See</i> Indians.)		
Crooks, James, report of Secretary of State on claim of	161	31
Crow Indians. (<i>See</i> Indians.)		
Cunningham, Maria, message of President vetoing bill (H. R. 5414) to pension	345	35
Customs. (<i>See</i> Import duties.)		
Customs cases, annual report of awards to informers in	14	20
Customs districts, report of Secretary of Treasury on non-paying	238	33
	246	33
	56	30
Customs officers, annual report on emoluments of		
Cutter, G. W., message of President vetoing bill (H. R. 3551) to pension	376	35
Cutting, A. K., message of President relative to arrest in Mexico of ...	371	35
D.		
Darling, James H., message of President vetoing bill (H. R. 7257) to pension	306	35
Debt of United States, report of Secretary of Treasury on sinking fund for	66	30
letter of Secretary of Treasury relative to destruction of mutilated securities	167	31
report from 1791 to 1825 on	116	21
Deming, Francis, message of President vetoing bill (H. R. 2971) to pension	350	35
Denver and New Orleans Railroad, letter of Secretary of Interior relative to discriminations against	186	33
Department of Justice, report of Attorney-General on trust funds in	271	33
estimate for fitting up building for	189	33
letter of Attorney-General relative to contingent fund of	224	33
supplemental estimates of appropriations for	173	33
Department of State, annual report on expenditures of	12	20
annual report on clerks in	52	30
estimate of appropriation for printing and binding for	86	30
Deputy Comptroller of Currency, letter of Secretary relative to salary of	103	30
Dermody, William, message of President vetoing bill (H. R. 1505) to pension	353	35
Direct tax of 1861, report of Secretary of Treasury on	158	31

Subjects.	No.	Vol.
District of Columbia, estimates of appropriations for schools in.....	84	30
estimate of appropriations for education of feeble-minded children in.....	80	30
letter of Secretary of War relative to appropriations for water supply in.....	39	25
appropriations for, estimates for public-school building public parks in, letter of Secretary of War relative to regulations for.....	223	33
Dow, Jennette, message of President vetoing bill (H. R. 3363) to pension.....	144	31
Duluth, Minn., message of President vetoing bill (H. R. 5550) to erect public building at.....	367	35
	340	35
E.		
Eight-hour law. (See Postal service.)		
Elderkin, David T., message of President vetoing bill (H. R. 5995) to pension.....	312	35
Eldridge, Rebecca, message of President vetoing bill (H. R. 2145) for relief of.....	250	33
Evans, Fannie E., message of President vetoing bill (H. R. 4426) to pension.....	339	35
Ex-Attorneys-General, letter of Attorney-General relative to vouchers for cost of portraits of.....	229	33
Executive Departments, letters relative to employment of substitutes in, from—		
Attorney-General.....	155	31
Postmaster-General.....	145	31
Secretary of Interior.....	168	31
Secretary of Navy.....	156	31
Secretary of State.....	160	31
Secretary of Treasury.....	166	31
Secretary of War.....	165	31
F.		
Farris, J. W., message of President vetoing bill (H. R. 6136) to pension.....	285	35
First Comptroller of the Treasury, annual report of unsettled accounts. report of.....	36	25
	27	26
Forbes, Duncan, message of President vetoing bill (H. R. 8336) to increase pension of.....	370	35
Foreign mercantile marine, report of Secretary of State on.....	172	31
Fort Brady, report of Secretary of War relative to sale of.....	81	30
Fort Douglas, estimate to enlarge.....	112	30
Fort Hamilton, estimate of appropriation for purchase of ground at.....	216	33
Fort Leavenworth, estimate of appropriation for building at.....	178	33
report of Secretary of War on encroachments of Missouri River on reservation at.....	121	31
Fort Monroe, Va., plans and estimates for permanent wharf at.....	28	25
letter of Secretary of War relative to erecting building for artillery school at.....	171	31
Fort Niagara, estimate of appropriation for protecting site of.....	292	25
Fort Porter, estimate for rebuilding.....	130	31
Fortifications, letter of Secretary of Treasury relative to appropriations for armament.....	259	33
Fourth of July claims. (See Claims.)		
Fox and Wisconsin Rivers, report of Attorney-General on awards for damages by improvements of.....	207	33
Freedman's Hospital, D. C., estimate for repairing water-tank at.....	88	30
French spoliation claims, estimate of appropriation for securing evidence in.....	266	33
French spoliation claims, report of Secretary of State on.....	194	33

Subjects.	No.	Vol.
G.		
Galveston Harbor, report of engineers on improvement of.....	85	30
Gold and silver, annual report of Director of Mint on production of	290	36
Gondalfo, Caesar, report of Secretary of Treasury on claim of.....	74	30
Governor's Island, N. Y., letter of Secretary of Treasury relative to beacon light on.....	159	31
Grand Island, Miss., estimate for light-house on.....	137	31
Gruy's Harbor, Wash. Ter., letter of Secretary of Treasury relative to additional appropriations for light-house at.....	98	30
Great Falls. (See Potomac River.)		
Green and Barren Navigation Company, letter of Secretary of War relative to purchasing franchises of.....	152	31
Grosse Island, Mich., letter of Secretary of Treasury relative to establishing range lights at.....	265	33
Guyse, George W., message of President vetoing bill (H. R. 3205) to pension.....	310	35
H.		
Hall of Records, letter of Secretary of Treasury relative to erecting	143	31
Hannibal, Mo., letter of Secretary of Treasury on increasing cost of public building at.....	150	31
Hanson Grant, Florida, report of Secretary of Interior on.....	331	35
Harbaugh, Sarah, message of President vetoing bill (H. R. 6895) to pension.....	315	35
Harden, S. W., message of President vetoing bill (H. R. 1406) to pension.	252	33
Harrington, Edward M., message of President vetoing bill (H. R. 6648) to pension.....	336	35
Haves, Susan, message of President vetoing bill (H. R. 7234) to pension.	374	35
Hawley, Giles C., message of President vetoing bill (H. R. 424) to pension.....	305	35
Hendricks, Thomas A., estimate of appropriation for engraved portraits of.....	151	31
Hennepin Canal. (See Illinois and Mississippi Canal.)		
Hensley, E. P., message of President vetoing bill (H. R. 1707) to pension.	289	35
Hill, Andrew J., message of President vetoing bill (H. R. 1471) to increase pension of.....	226	33
Hipple, Henry, message of President vetoing bill (H. R. 6897) to pension.....	284	35
Holland, report of Secretary of State on taxation of petroleum by.....	179	33
Hot Springs, Ark., estimate of appropriations for improvements at.....	254	33
letter of Secretary of War relative to Army and Navy hospital at.....	212	33
Humboldt Bay, California, report of Secretary of Treasury relative to removing light-house at.....	296	35
Hunter, John, message of President vetoing bill (H. R. 1990) to pension.	91	30
Hunter, Maria, message of President vetoing bill (H. R. 7167) for relief of.....	282	35
	327	35
I.		
Illinois and Mississippi Canal, report of engineers on surveys of routes for.....	117	30
Immigration, letter of Secretary of Treasury relative to regulation of.....	141	31
Import duties, annual report on refunds of.....	16	20
annual report of Secretary of Treasury on expenses of collecting.....	33	25
letter of Secretary of Treasury relative to revision of laws regulating protests, appeals, and suits for collection at.....	43	25
letter of Secretary of Treasury relative to revision of.....	147	31
report of Secretary of Treasury on questions arising under tariff act of 1883.....	68	30
report of Secretary of Treasury relative to drawbacks on coal.....	201	33

Subjects.	No.	Vol.
Indian Bureau, estimate of appropriation for clerical force in	89	30
Indian Commissioners, annual report	109	30
Indian depredation claims, report of Secretary of Interior on	125	31
Indians :		
census of, estimate of appropriations for taking	79	30
Cheyenne, message of President relative to condition of	17	20
Cree, estimate for relief of	231	33
Crow, letter from Secretary of Treasury relative to appropriation for allotment of lands to	53	30
Mackinac Agency, estimate for compensation of agent at	234	33
Mescalero Reservation, letter of Secretary of Interior relative to paying settlers for improvements on	221	33
Miami, letter of Secretary of Interior relative to relief of	57	30
letter of Secretary of Interior relative to funds of	23	30
Navajo Reservation, estimate of appropriation for artesian wells on	263	33
Round Valley Agency, estimate of appropriations for	295	35
Reservation, report of Secretary of Interior on allotting lands of	21	25
Sioux, estimate to pay claims of Red Cloud and Red Leaf bands of	35	25
Indian service, report of expenses and disbursements in	6	20
Interior Department, annual report of contingent expenditures of	15	20
estimate for constructing east wing of building of	230	33
Internal Revenue, Annual Report of Commissioner of	4	20
letter of Secretary of Treasury relative to paying drawbacks on stills exported	46	25
taxes, letter of Secretary of Treasury relative to license-tax on retail liquor-dealers	107	30
collectors, relative to repealing commissions to	122	31
letter of Secretary of Treasury relative to commissions to	122	31
laws, letter of Secretary of Treasury relative to penalties for having in possession used liquor-stamps	190	33
law, letter of Secretary of Treasury relative to penalties for having in possession used liquor-stamps	194	33
International copyright. (See Copyright.)		
Iron and steel tests, estimate of appropriations for	73	30
Irwin, John T., message of President vetoing bill (H. R. 3640) to pension	338	35
J.		
Jacoby, Margaret A., message of President vetoing bill (H. R. 5021) to pension	344	35
Jeffersonville, Indiana, estimate of appropriation to purchase land at	178	33
Joseph Richards, letter of Secretary of Interior relative to accounts of	127	31
Jurors. (See Courts of United States.)		
K.		
Kansas City, Fort Scott and Gulf Railroad, message of President returning bill (H. R. 6391) granting right of way to	255	33
Karstetter, Mary, message of President vetoing bill (H. R. 2043) to pension	341	35
Kinney, Ann, message of President vetoing bill (H. R. 5349) to pension	375	35
Kyler, H. L., message of President vetoing bill (H. R. 1818) to pension	334	35
L.		
La Abra Mining Company, report of Secretary of State on claim of	274	33
Lancaster, R. D., letter of Secretary of Treasury relative to charges against	360	35
Leavenworth Military Prison, letter of Secretary of War relative to application of appropriations for	200	33
Lee, F. J., message of President vetoing bill (H. R. 3624) to pension	283	35
Legaré, Jean Louis, letter of Secretary of State relative to claim of	356	35

Subjects.	No.	Vol.
Lehman, L., report of Secretary of Treasury on reappraisement of glass-ware imported by	22	25
Letter-carriers. (See Postal Service.)		
Lights, letter of Secretary of Treasury relative to appropriation for depot for fourteenth light-house district	40	25
Grand Island, Miss., estimate for light-house on	137	31
Gray's Harbor, Washington, letter of Secretary of Treasury relative to additional appropriation for light-house at	98	30
Governor's Island, New York, letter of Secretary of Treasury relative to beacon-light on	159	31
Grosse Island, Michigan, letter of Secretary of Treasury relative to establishing range-lights at	265	33
light-houses, estimate of appropriations for repair of	269	33
Pensacola, Fla., letter of Secretary of Treasury relative to additional, at	45	30
Two Harbors, Minn., estimate for light station at	203	33
Liquor dealers. (See Alcoholic liquor traffic.)		
Loomis, Aretus F., message of President vetoing bill (H. R. 7018) to pension	333	35
Lord Nelson (schooner), letter of Secretary of State on claim of	161	31
Luce, Elizabeth, message of President vetoing bill (H. R. 5997) to pension	281	35
M.		
McCarty, Catharine, message of President vetoing bill (H. R. 5603) to pension	335	35
McIlwain, Martha, message of President vetoing bill (H. R. 7162) to pension	318	35
McKay, Elizabeth, message of President vetoing bill (H. R. 4782) to pension	347	35
Mackinac Agency. (See Indians.)		
Mare Island navy-yard, estimate of appropriations for quarters and barracks at	279	33
Marine Corps, additional estimate of appropriations for	202	33
Marine Hospital Service, letter of Secretary of Treasury relative to an additional surgeon-general in	187	33
estimate of appropriation for repair of hospitals	217	33
Medical examiners. (See Pension Office.)		
Merchant marine. (See Commerce and navigation.)		
Mescalero Reservation. (See Indians.)		
Mexican awards, report of Secretary of State on claims of La Abra Mining Company and B. Weil under	274	33
Miami. (See Indians.)		
Military Academy, estimate of appropriations for	119	31
letter of Secretary of War relative to appropriation for	135	31
Milk sugar, letter of Secretary of State on manufacture in Switzerland of	188	33
Miller, Mary Ann, message of President vetoing bill (H. R. 1816) to pension	309	35
Miller, Samuel, message of President vetoing bill (H. R. 7401) to pension	316	35
Mint, annual report of Director of Mint on production of precious metals	290	36
estimate of appropriation for boilers at Philadelphia mint	273	33
letter of Secretary of Treasury relative to appropriation for	87	30
letter of Secretary of Treasury relative to salaries of officers of	126	31
letter of Secretary of Treasury relative to appropriation for mint Carson City, Nev.	267	33
Mississippi River, letter of Secretary of War relative to regulations for passage of vessels through, South Pass of	59	30
letter of Secretary of War relative to appropriations for continuing examinations of South Pass of	75	30
Mississippi River Commission, supplemental report of	38	30
Missouri River Commission, report of	41	30
Monroe, J. D., message of President vetoing bill (H. R. 4058) to pension	286	35
Montana, estimate of appropriations for legislative expenses of	123	31

Subjects.	No.	Vol.
Moorehead, Abner, message of President vetoing bill (H. R. 3304) to pension	346	35
Muskingum River, report of engineers on survey of	48	25
Mutual Life Insurance Company, N. Y., letter of Secretary of Treasury relative to claim of	235	33
N.		
National Museum, estimate of appropriations for	291	35
Navajo Reservation. (<i>See</i> Indians.)		
Navy, list of retired officers	111	30
vessels, estimate of appropriation for armament of new cruisers..	215	33
report of Secretary of Navy relative to progress on steel cruisers..	185	33
Navy Department, annual report of contingent expenses of	47	25
annual report of employes in	65	30
estimate to pay carpenters at	242	33
estimate for pay of draftsmen in Bureau of Steam-Engineering	243	33
estimate of deficiency appropriation for Bureau of Ordnance	195	33
Navy-yard, Mare Island, estimate of appropriations for quarters and barracks at	279	33
Neptune Island, New York, estimate of appropriation to purchase land at	178	33
Nevil, William H., message of President vetoing bill (H. R. 3623) to pension	349	35
New Mexico, letter of Secretary of Interior relative to adjusting private land claims in	209	33
New Orleans, La., estimate of appropriation for repairs of mint building at	218	33
report of Secretary of Treasury on moneys and funds seized by military authorities at	101	30
New York City, report of Secretary of War on purchase of Produce Exchange in	13	20
estimate of appropriation for an assistant collector at	240	33
letter of Secretary of Treasury relative to additional accommodations for appraiser's store at	94	30
estimate of appropriation for repairing barge office at	220	33
letter of Secretary of Treasury relative to sale of old post-office in	235	33
estimates of appropriation for sub-treasury at	180	33
Norfolk navy-yard, report of Secretary of Navy on affairs at	118	30
Norman, Mary, message of President vetoing bill (H. R. 6192) to pension ..	325	35
O.		
Olcott Harbor, New York, estimate for repairs at	228	33
Oleomargarine, message of President relative to bill to define butter and to tax	368	35
Oregon, report of Secretary of Interior on wagon-road land grants in ..	131	31
Ounalaska (schooner), report of Secretary of State on case of	329	35
P.		
Pacific Railroads, letter of Secretary of Interior on contracts of	60	30
report of Secretary of Treasury on sinking fund for	44	25
Painter, Francis J., report of Secretary of Navy on retirement of	182	33
Parks, letter of Secretary of War relating to regulations for, in District of Columbia	144	31
Pascagoula River, Florida, report of engineers on survey of	83	30
Passenger act, letter of Secretary of Treasury relative to	72	30
Paul, Joseph, estimate of appropriation to pay	328	35
Pensacola, Fla., letter of Secretary of Treasury relative to additional lights at	45	25
Pension Board of Appeals, letter of Secretary of Interior relative to salaries of	154	31

Subject.	No.	Vol.
Pension Bureau, estimate for additional floor in building of.....	256	33
Pension Office, letter of Secretary of Interior relative to medical examiners in.....	164	31
Pension Office building, estimate of appropriation for completing.....	96	30
estimate of appropriation for completing.....	96	30
Pensions, estimates of additional appropriations for.....	162	31
additional estimates for appropriations for.....	162	31
Petroleum, report of Secretary of State on taxation by Holland of.....	254	33
Philadelphia, letter of Secretary of Treasury relative to additional watchmen at silver vaults in.....	169	31
Points, Abraham, message of President vetoing bill (H. R. 8556) to pension.....	373	35
Pork, report of Secretary of State relative to restrictions on American..	181	33
Postal service, annual report of Postmaster-General on proposals for mail contracts.....	9	22
annual report of Postmaster-General on mail contracts.....	20	20
letter of Postmaster-General relative to pay of railway postal clerks.....	110	30
letter of Postmaster-General relative to application of eight-hour law to letter-carriers.....	71	30
Postmaster-General:		
Communications from—		
Mail contracts, annual report on proposals for.....	9	22
annual report on.....	20	20
Postal service, relative to pay of railway postal clerks.....	110	30
relative to application of eight-hour law to letter-carriers.....	71	30
Postmasters, report on disallowed stationery accounts of.....	245	33
Post-Office Department, report of unsettled accounts in.....	97	30
Substitutes, relative to employment of.....	145	31
Trust funds, report on.....	330	35
Postmasters, report of Postmaster-General on disallowed stationery accounts of.....	245	33
Post-Office Department, report of Postmaster-General on unsettled accounts in.....	97	30
Potomac River, report of Secretary of War on fishways at Great Falls..	272	33
Poughkeepsie, N. Y., estimate for approaches to public building at....	42	25
Precious metals. (See Gold and Silver.)		
President of the United States:		
Annual message, with accompanying documents—		
Foreign Relations, part 1.....	1	1
Report of Secretary of War, 4 volumes, part 2.....	1	2-8
Report of Secretary of Navy, 2 volumes, part 3.....	1	9
Report of Postmaster-General, part 4.....	1	10
Report of Secretary of Interior, 5 volumes, part 5.....	1	11-15
Communications from—		
American vessels, transmitting report on seizure in British waters.....	217	33
Bartholdi statue of Liberty, relative to inaugurating.....	221	33
Chinese immigration, relative to.....	232	33
Civil Service Commission, transmitting annual report of.....	102	30
Clarksburg, W. Va., relative to appropriation for public building at.....	140	31
Consular reports, transmitting.....	366	35
Crooks, James, transmitting report on claim of.....	253	34
Crow Indians, transmitting a report relative to.....	161	31
Cutting, A. K., relative to arrest in Mexico of.....	53	30
Foreign mercantile marine, transmitting report on.....	371	35
Holland, transmitting report on taxation of petroleum by.....	172	31
Indian Commissioner, transmitting annual report of.....	179	33
International copyright, transmitting diplomatic correspondence relative to.....	109	30
Kansas City, Fort Scott and Gulf Railroad, returning bill for.....	354	35
Mexican awards, transmitting report on claims of La Abra Mining Company and B. Weil under.....	255	33
Miami Indians, transmitting report relative to relief of.....	274	33
	57	30

Subject.	No.	Vol.
President of the United States—Continued.		
Communications from—Continued.		
Milk-sugar, transmitting report on manufacture in Switzerland of..	188	33
Northern Cheyenne Indians, relative to condition of	17	20
Oleomargarine, relative to bill to tax manufacture of	368	35
Ounalaska (schooner), transmitting report on case of	329	35
Pacific railroads, transmitting report on contracts of	60	30
Petroleum, transmitting report on taxation by Holland of	254	33
Pork, transmitting report on foreign restrictions on importation of.	181	23
Round Valley Reservation, transmitting report on allotting lands of.	21	25
Santos, Julio R., transmitting report on imprisonment in Ecuador of	361	35
Shipping fees, relative to bill H. R. 4838, to abolish certain	277	33
South American Commission, transmitting report of	50	25
Substitutes, transmitting report on employment in Executive Departments of	160	31
Tonnage duties, transmitting diplomatic correspondence relative to.	132	31
Trust funds, transmitting report of Secretary of State on	362	35
Veto—		
Bill (H. R. 1471) to increase pension to Andrew J. Hill	226	33
Bill (H. R. 3019) to increase pension to Abigail Smith	227	33
Bill (H. R. 2145) for relief of Rebecca Eldridge	250	33
Bill (H. R. 1582) for relief of Eleanor C. Bangham	251	33
Bill (H. R. 1406) to pension S. W. Harden	252	33
Bill (H. R. 5997) to pension Elizabeth Luce	290	33
Bill (H. R. 1990) to pension John Hunter	292	35
Bill (H. R. 3624) to pension F. J. Leese	293	35
Bill (H. R. 6897) to pension Henry Hipple	294	35
Bill (H. R. 6136) to pension J. W. Farris	295	35
Bill (H. R. 4058) to pension J. D. Monroe	296	35
Bill (H. R. 3826) to pension John Taylor	297	35
Bill (H. R. 4002) to pension C. W. Tiller	298	35
Bill (H. R. 1007) to pension E. P. Hensley	299	35
Bill (H. R. 6718) to pension William H. Starr	298	35
Bill (H. R. 7108) to pension Andrew J. Wilson	299	35
Bill (H. R. 6372) to pension Charles A. Chase	300	35
Bill (H. R. 6774) to pension Bruno Schultz	301	35
Bill (H. R. 576) for relief of Louisa C. Beezeley	302	35
Bill (H. R. 7703) to pension Anna A. Probert	303	35
Bill (H. R. 6257) for relief of Julia Connelly	304	35
Bill (H. R. 424) to pension Giles C. Hawley	305	35
Bill (H. R. 7257) to pension James H. Darling	306	35
Bill (H. R. 7614) to increase pension to Hezekiah Tillman	307	35
Bill (H. R. 7109) to pension Joseph Tuttle	308	35
Bill (H. R. 1816) to pension Mary Ann Miller	309	35
Bill (H. R. 3205) to pension George W. Guyse	310	35
Bill (H. R. 6117) to pension James D. Cotton	311	35
Bill (H. R. 5995) to pension David T. Elderkin	312	35
Bill (H. R. 7222) to pension Sallie West	313	35
Bill (H. R. 7073) to pension Mary S. Woodson	314	35
Bill (H. R. 6895) to pension Sarah Harbaugh	315	35
Bill (H. R. 7401) to pension Samuel Miller	316	35
Bill (H. R. 7931) to increase pension of Clark Boon	317	35
Bill (H. R. 7162) to pension Martha McIlwain	318	35
Bill (H. R. 7298) for the relief of Charles Schuler	319	35
Bill (H. R. 6688) for relief of William Bishop	320	35
Bill (H. R. 7979) to pension Jackson Stewart	321	35
Bill (H. R. 7436) to pension Mary Anderson	322	35
Bill (H. R. 6752) to pension Alice E. Travers	323	35
Bill (H. R. 6266) to pension Philip Arner	324	35
Bill (H. R. 6192) to pension Mary Norman	325	35
Bill (H. R. 6170) to pension Mary A. Van Etten	326	35
Bill (H. R. 7167) for relief of Maria Hunter	327	35
Bill (H. R. 472) to pension William Boone	322	35
Bill (H. R. 7018) to pension Aretus F. Loomis	333	35
Bill (H. R. 1818) to pension H. L. Kyler	334	35

Subjects.	No.	Vol.
President of the United States—Continued.		
Communications from—Continued.		
Veto—Continued.		
Bill (H. R. 5603) to pension Catharine McCarty	335	35
Bill (H. R. 6648) to pension Edward M. Harrington	336	35
Bill (H. R. 5394) to pension Sally A. Bradley	337	35
Bill (H. R. 3640) to pension James T. Irwin	338	35
Bill (H. R. 4426) to pension Fannie E. Evans	339	35
Bill (H. R. 5550) to erect public building at Duluth, Minn.	340	35
Bill (H. R. 2043) to pension Mary Karstetter	341	35
Bill (H. R. 5306) to pension Roxana V. Rowley	342	35
Bill (H. R. 4797) to pension Robert H. Stapleton	343	35
Bill (H. R. 5021) to pension Margaret A. Jacoby	344	35
Bill (H. R. 5414) to pension Maria Cunningham	345	35
Bill (H. R. 3304) to pension Abner Moorehead	346	35
Bill (H. R. 4782) to pension Elizabeth McKay	347	35
Bill (H. R. 3043) to pension Lewis W. Scanland	348	35
Bill (H. R. 3613) to pension William H. Nevil	349	35
Bill (H. R. 2971) to pension Francis Deming	350	35
Bill (H. R. 4642) to pension James Carroll	351	35
Bill (H. R. 1059) to pension Jacob Romiser	352	35
Bill (H. R. 1505) to pension William Dermody	353	35
Bill (H. R. 524) to pension D. H. Ross	355	35
Bill (H. R. 5546) to erect public building at Asheville, N. C.	357	35
Bill (H. R. 1391) to erect public building at Springfield, Mo.	364	35
Bill (H. R. 3363) to pension Jeunette Dow	367	35
Bill (H. R. 9106) to pension Rachel Barnes	369	35
Bill (H. R. 8336) to increase pension of Duncan Forbes	370	35
Bill (H. R. 8556) to pension Abraham Points	373	35
Bill (H. R. 7234) to pension Susan Hawes	374	35
Bill (H. R. 5389) to pension Ann Kinney	375	35
Bill (H. R. 3551) to pension G. W. Cutler	376	35
Bill (H. R. 1584) for the relief of A. C. Richardson	377	35
Private land claims:		
Florida: Report of Secretary of Interior on Hanson grant	331	35
New Mexico, estimate of appropriations for survey of	146	31
Report of Secretary of Interior on San Tomas de Yturbide claim.	196	33
Letter of Secretary of Interior relative to adjustment of	209	33
Probert, Anna A., message of President vetoing bill (H. R. 7703) to pension	303	35
Produce Exchange, New York City, report of Secretary of War on purchase of	13	20
Public buildings, estimate of appropriations for repairs of	113	30
for heating apparatus in	128	31
certain	358	35
for repair of	214	33
Public documents, annual report on distribution of	217	33
Public lands, suspended entries, annual list of	218	33
Public printing, estimate of deficiency appropriation for	30	25
	222	33
Q.		
Quartermaster's Department, estimates of appropriations for	93	30
R.		
Receipts and expenditures, annual report of, 1882	31	27
1885	29	27
1883	365	35
Receipts and expenditures and public debt, report on, to 1885	116	21
Records. (See Hall of Records.)		
Register's Office. (See Treasury Department.)		
Richardson, A. C., message of President vetoing bill (H. R. 1584) for relief of	377	35

Subjects.	No.	Vol.
Rivers and harbors, letter of Secretary of War relative to appropriations	372	35
Rochester, N. Y., letter of Secretary of Treasury relative to appropriation for public building at	236	33
Romiser, Joseph, message of President vetoing bill (H. R. 1059) to pension	352	35
Rosa, D. M., message of President vetoing bill (H. R. 524) to pension	355	35
Round Valley Reservation. (See Indians.)		
Rowley, Roxana V., message of President vetoing bill (H. R. 5306) to pension	342	35
S.		
Saco River, Me., report of engineers on survey of	37	25
Saint Mary's Falls Canal, letter of Secretary of War relative to improving	61	30
Santa Fé, N. Mex., letter of Secretary of Interior relative to repairing adobe palace at	105	30
Santee River, S. C., report of engineers on improvement at	114	30
Santos, Julio R., report of Secretary of State of imprisonment in Ecuador of	361	35
Saugatuck River, report of engineers on survey of	76	30
Scanland, Lewis W., message of President vetoing bill (H. R. 3043) to pension	348	35
Schuler, Charles, message of President vetoing bill (H. R. 7298) for relief of	319	35
Schultz, Bruno, message of President vetoing bill (H. R. 6774) to pension	301	35
Seamen, estimate of appropriation for shipping and discharging seamen at Liverpool	193	33
Secretary of Interior:		
Communications from—		
Denver and New Orleans Railroad, relative to discriminations against	186	33
Hanson, John H., relative to land survey of	331	35
Indian depredation claims, report on	125	31
Interior Department, annual report on contingent expenditures of	15	20
Joseph, Richard, relative to accounts of	127	31
Medical examiners in Pension Office, relative to	164	31
Mescalero Reservation, relative to paying settlers for improvements	221	33
Miami Indians, relative to relief of	57	30
relative to funds of	23	25
Northern Cheyenne Indians, relative to condition of	17	20
Oregon wagon-road grants, relative to	131	30
Pacific Railroads, relative to contracts of	60	30
Pension board of appeals, relative to salaries of	154	31
Private land claims, report on Santa Tomas de Yturbe claim, New Mexico	196	33
Public documents, annual report on distribution of	78	30
Round Valley Reservation, on allotting lands of	21	25
Santa Fé, N. Mex., relative to repairing adobe palace at	105	30
Suspended entries of public lands, annual report on	30	25
Trust funds, statement of	168	31
Secretary of Navy:		
Communications from—		
Navy Department, annual report of contingent expenditures of	47	25
on employés in	65	30
relative to employment of substitutes in	156	31
Norfolk navy-yard, relative to	118	30
Painter, F. J., relative to retirement of	192	33
Retired officers, list of	111	30
Trust funds, report on	263	33
Vessels, relative to progress on steel cruisers	185	33
Washington navy-yard, relative to ordnance shops in	139	31

Subjects.	No.	Vol.
Secretary of State:		
Communications from—		
Bordeaux International Congress, relative to	205	33
Compagnie Générale Transatlantique, relative to claim of	206	33
Consular reports, transmitting	253	33
Crooks, James, relative to claim of	161	31
Cutting, A. K., relative to arrest in Mexico of	371	35
Department of State, annual report on expenditures of	12	20
Foreign mercantile marine, report on	172	31
French spoliation claims, report of Mr. Tuck on	194	33
Holland, on taxation of petroleum by	179	33
International copyright, diplomatic correspondence relative to	254	33
Mexican awards, relative to claims of La Abra Mining Company and B. Weil under	354	25
Milk sugar, on manufacture in Switzerland of	274	33
Onnalaska (schooner), relative to case of	188	33
Petroleum, relative to taxation by Holland of	329	35
Pork, on foreign restrictions on importation of	254	33
Santos, Julio R., relative to imprisonment in Ecuador of	181	33
Sitting Bull, relative to claim of J. L. Lagaré in procuring surren- der of	361	35
State Department, annual report on clerks in	356	35
Substitutes, relative to employment in Executive Departments of ..	52	30
Tonnage duties, diplomatic correspondence relative to	160	31
Trust funds: report on	132	31
	362	35
Secretary of Treasury:		
Communications from—		
Annual report	2	18
Alaska, relative to accounts of secretary of	276	33
Andrews, C. C.: relative to reimbursement of	124	31
Appropriations, supplemental estimates for	176	33
estimates for building at Fort Leavenworth, and purchase of land at Jeffersonville and Neptune Island	178	33
estimates for ensuing fiscal year	5	21
Attorneys-General, relative to vouchers for cost of portraits of	229	33
Balances, report of balances due to and from United States	363	35
Bartholdi statue of Liberty, estimate of appropriation for inau- gurating	249	33
Beard, W. H., estimate to pay claim of	241	33
Boise City penitentiary, relative to enlarging	54	30
Bonaveris, Paul, estimate of appropriation to pay	198	33
Boston sub-treasury, relative to payment of silver dollars at	163	31
Brooklyn, N. Y., relative to increasing cost of public building at ...	129	31
Bureau of Engraving and Printing, relative to improving building at	170	31
Bureau of Labor, estimates of appropriation for	69	30
Cadwallader, J. F., relative to amount of	67	30
Cape Orford light, estimate of appropriation for	134	31
Capitol grounds, relative to appropriation for improving	104	30
Carson City mint, relative to appropriation for	267	33
Census, estimate of appropriation for	191	33
Census of Indians, estimate of appropriations for taking	79	30
Central Pacific Railroad, estimates of appropriation to pay trans- portation claims of 1865	270	33
Central Pacific Railroad, estimates to pay mail service	280	33
Chargés d'affaires, estimate of deficiency appropriation for salaries of	261	33
Claims, list of claims allowed for which no appropriations made ...	210	33
list of claims allowed under exhausted appropriations	225	33
estimate of appropriation for defending suits against United States for	211	33
list of, allowed	294	35
list of claims allowed by Court of Claims	233	33
allowed	70	30

Subjects.	No.	Vol.
Secretary of Treasury—Continued.		
Communications from—		
Coal, relative to drawbacks on	201	33
Coast survey, annual report of expenditures	32	25
annual report	18	23
Collectors of customs, relative to snits against	148	31
Commissioners, additional estimates of appropriations for	204	33
Consuls, estimate of appropriations for salaries of alien	239	33
Corwin, report of cruise	153	32
Court of Claims, estimate of appropriations for judgments of	275	33
Cree Indians, estimate for relief of	231	33
Crow Indians, relative to appropriation for allotment of lands to	53	30
Customs cases, annual report of awards to informers in	14	20
relative to revision of laws regulating	43	25
districts, relative to non-paying	238	33
officers, annual report on emoluments of	56	30
Department of Justice, estimate for fitting up building for	189	33
Deputy Comptroller of Currency, relative to salary of	103	30
Direct tax of 1861, relative to	158	31
District of Columbia, estimate of appropriation for education of fee- ble-minded children in	80	30
estimates of appropriations for schools in	84	30
estimate of appropriation for public-school buildings	223	33
Fort Douglas, estimate to enlarge	112	31
Fort Hamilton, estimate of appropriation for purchase of ground at	216	33
Fort Niagara, estimate of appropriation for protecting site of	292	35
Fortifications, relative to appropriation for armament of	259	33
Freedmen's Hospital, estimate of appropriation for repairs at	88	30
French spoliation claims, estimate of appropriation for securing evi- dence in	266	33
Galveston, Tex., relative to act for erection of public building at	85	30
Gondolfo, Caesar, on claim of	74	30
Governor's Island, New York, relative to beacon-light on	159	31
Grand Island, Mississippi, estimate for erecting light-house at	137	31
Gray's Harbor, relative to additional appropriations for light- house at	98	30
relative to appropriation for light-house at	65	30
Hall of records, recommending erection of	143	31
Hannibal, Mo., relative to increasing cost of public building at	150	31
Hendricks, T. A., estimate of appropriation for engraved portraits of	151	31
Hot Springs, Ark., estimates of appropriations for improvement at	212	33
Humboldt Bay, California, relative to removing light-house at	91	30
Immigration, relative to regulation of	141	31
Import duties, annual report on refunds of	16	20
Indian Office, estimate of appropriation for clerical force in	89	30
Interior Department, estimate for reconstructing east wing of building	230	33
Internal-revenue collectors, relative to commissions to	1910	-----
laws, relative to amending section 12 of act of 1879	149	31
Jurors' fees, additional estimates of appropriations for	173	33
Lancaster, R. D., relative to charges against	360	35
Lehman, L., relative to reappraisement of glassware imported by	22	25
Light-house depot for fourteenth district, relative to an appropria- tion for	40	25
Light-houses, estimates of appropriations for repair of	269	33
Mackinac Indian agency, estimate for compensation of agent at	234	33
Mare Island navy-yard, estimate of appropriations for quarters and barracks at	279	33
Marine Corps, additional estimates of appropriations for	202	33
Marine Hospital Service, relative to an additional surgeon-general in	187	33
Minor coin, estimate for transportation of	247	33

Subjects.	No.
ESTIMATES OF APPROPRIATIONS FOR—	
Bureau of Customs, estimate of officers of	136
Bureau of Customs, estimate of	37
Bureau of Customs, estimate of	273
Bureau of Customs, estimate of	123
Bureau of Customs, estimate of	291
Bureau of Customs, estimate of	263
Bureau of Customs, estimate of	215
Bureau of Customs, estimate of	242
Bureau of Customs, estimate of	943
Bureau of Customs, estimate of	195
Bureau of Customs, estimate of	101
Bureau of Customs, estimate of	240
Bureau of Customs, estimate of	94
Bureau of Customs, estimate of	220
Bureau of Customs, estimate of	235
Bureau of Customs, estimate of	180
Bureau of Customs, estimate of	174
Bureau of Customs, estimate of	44
Bureau of Customs, estimate of	72
Bureau of Customs, estimate of	328
Bureau of Customs, estimate of	256
Bureau of Customs, estimate of	169
Bureau of Customs, estimate of	42
Bureau of Customs, estimate of	290
Bureau of Customs, estimate of	146
Bureau of Customs, estimate of	128
Bureau of Customs, estimate of	358
Bureau of Customs, estimate of	113
Bureau of Customs, estimate of	214
Bureau of Customs, estimate of	217
Bureau of Customs, estimate of	218
Bureau of Customs, estimate of	222
Bureau of Customs, estimate of	93
Bureau of Customs, estimate of	31
Bureau of Customs, estimate of	29
Bureau of Customs, estimate of	365
Bureau of Customs, estimate of	116
Bureau of Customs, estimate of	95
Bureau of Customs, estimate of	99
Bureau of Customs, estimate of	236
Bureau of Customs, estimate of	295
Bureau of Customs, estimate of	193
Bureau of Customs, estimate of	167
Bureau of Customs, estimate of	262
Bureau of Customs, estimate of	120
Bureau of Customs, estimate of	64
Bureau of Customs, estimate of	142
Bureau of Customs, estimate of	100
Bureau of Customs, estimate of	66
Bureau of Customs, estimate of	35
Bureau of Customs, estimate of	83
Bureau of Customs, estimate of	26
Bureau of Customs, estimate of	55

Subjects.	No.	Vol.
Secretary of Treasury—Continued.		
Communications from—		
Steam-vessels, relative to appointment of watchmen on.....	63	30
relative to amending laws for inspection of.....	359	35
Still, relative to paying drawbacks on exports of.....	46	25
Substitutes, on employment.....	166	31
Surveyor-general of Arizona, relative to salary of.....	106	30
Tariff, relative to revision of.....	147	31
Tariff act of 1883, questions arising under.....	68	30
Testing-machine, estimate of appropriation for.....	73	30
Thomas, Thomas, relative to refunding fine to.....	258	33
Tokio, Japan, estimate of appropriation to pay rental of legation buildings at.....	213	33
Treasury building, estimate of appropriation to improve sanitary condition of.....	219	33
Treasury Department, annual report on contingent expenditures of.....	10	20
estimate of deficiency appropriation for custodians and janitors in.....	190	33
estimate of appropriations for printing for..	95	30
relative to applying unexpended appropriations to deficiencies in.....	237	33
recommending additional clerk in disbursing office of.....	260	33
Trust funds, report on.....	293	35
Two Harbors, Minn., estimate for light station at.....	203	33
Utah, estimate for furniture for office of governor of.....	257	33
War claims, list of those allowed under act of July 4, 1865.....	34	25
Wichita, Kans., relative to appropriation for public building at.....	204	33
Witness and juror fees, estimate of deficiency appropriation for.....	244	33
Wyoming penitentiary, relative to enlarging.....	157	31
Secretary of War:		
Communications from—		
Army, annual report on expenditure of contingent fund of.....	77	30
Army and Navy hospital at Hot Springs, relative to.....	296	35
Army transportation, relative to appropriation for.....	192	33
Artillery school, relative to erecting building for.....	171	31
relative to pay of enlisted men employed at.....	108	30
Artillery light batteries, relative to organization of.....	115	30
Balances, report of balances on books of War Department.....	133	31
Block Island, relative to submarine cable at.....	197	33
Boston Harbor, relative to repairing sea-wall in.....	136	31
District of Columbia water supply, relative to appropriation for.....	39	25
Fort Brady, relative to sale of.....	81	30
Fort Leavenworth, relative to encroachment of river at.....	121	31
Fort Monroe, plans and estimates for permanent wharf at.....	28	25
Fort Porter, estimate for rebuilding.....	130	31
Great Falls, on fishways at.....	272	33
Green and Barren River Navigation Company, relative to purchasing franchises of.....	152	31
Hennepin Canal, surveys of routes for.....	117	30
Leavenworth military prison, relative to application of appropriation for.....	200	33
Mileage, relative to.....	134	31
Military Academy, estimate of appropriations for.....	119	31
Military Academy, relative to appropriations for.....	135	31
Mississippi River Commission, supplemental report of.....	38	25
Missouri River Commission, report of.....	41	25
Oleott Harbor, New York, estimate for repairs at.....	228	33
Produce Exchange building, New York, relative to purchase of for Army use.....	13	20
Public parks in District of Columbia, relative to regulations for.....	144	31
Rivers and harbors, report on survey of Saco River, Maine.....	37	25
report on survey of Muskingum River.....	48	25
relative to appropriations for.....	372	35

Subjects.	No.	Vol.
Secretary of War—Continued.		
Communications from—		
Rivers and harbors, survey of Saugatuck	76	30
survey of Arkansas River	90	30
survey of Wacissa River, Florida	82	30
survey of Pascagoula River, Florida	83	30
improvement of Galveston Harbor	85	30
improvement of Santee River, South Carolina	114	30
Saint Mary's Fall Canal, relative to improving	61	30
Signal Service, memorial of enlisted men relative to commutations	297	35
relative to appropriations for	248	33
relative to estimates of appropriations for	{ 92	30
	{ 175	33
Signal Service, map, relative to claim of American Graphic Com- pany for publishing	183	33
South Pass, Mississippi River, relative to appropriations for con- tinuing examinations of	75	30
relative to regulations for using	58	30
Substitutes, on employment of	165	31
Trust funds, report on	278	33
War Department, annual report on contingent expenditures of	8	20
War Department library, relative to binding for	268	33
Willets Point, N. Y., plans and estimates for buildings at	25	25
Securities, letter of Secretary of Treasury relative to destruction of mu- tilated	167	31
Shearman, George K., report of Secretary of Treasury on claim of	262	33
Shipping fees, message of President relative to House bill 4538 to abol- ish certain	277	33
Signal Service, estimate of additional appropriations for	120	31
letter of Secretary of War relative to estimates of ap- propriations for	{ 92	30
letter of Secretary of War relative to appropriations for	{ 175	33
memorial of enlisted men relative to commutation for fuel and quarters	248	33
report of Secretary of War on claim of American Graphic Company against	297	35
	183	33
Silver. (<i>See</i> Coins and Coinage.)		
Sinking Fund. (<i>See</i> Debt of United States.)		
Sioux Indians. (<i>See</i> Indians.)		
Sitting Bull (<i>Indian</i>), letter of Secretary of State relative to claim of J. L. Legaré in securing surrender of	356	35
Smith, Abigail, message of President vetoing bill (H. R. 3019) increas- ing pension of	227	33
South American Commission, report of	50	25
South Pass. (<i>See</i> Mississippi River.)		
Springfield, Mo., message of President vetoing bill (H. R. 1391) to erect public building at	364	35
Stapleton, Robert H., message of President vetoing bill (H. R. 4797) to pension	343	35
Starr, William H., message of President vetoing bill (H. R. 6718) to pen- sion	298	35
State Department. (<i>See</i> Department of State)		
Statistical abstract, annual report of	26	25
Steam vessels, letter of Secretary of Treasury relative to appointment of watchmen on	63	30
letter of Secretary of Treasury to amending laws for in- spection of	359	35
letter of Secretary of Treasury relative to laws governing construction of boilers for	55	30
Steward, Jackson, message of President vetoing bill (H. R. 7979) to pen- sion	321	35
Still, letter of Secretary of Treasury relative to drawbacks on exports of	46	25
Switzerland, report of Secretary of State on manufacture of milk-sugar in	188	33
Symons, Thomas, letter of Attorney-General relative to claim of	177	33

Subjects.	No.	Vol.
T.		
Tariff. (<i>See</i> Import duties.)		
Taylor, John, message of President vetoing bill (H. R. 3826) to pension	287	35
Testing machine. (<i>See</i> Iron and steel tests.)		
Thomas, Thomas, letter of Secretary of Treasury relative to refunding fine to	258	33
Tiller, C. W., message of President vetoing bill (H. R. 4002) to pension	288	35
Tillman, Hezekiah, message of President vetoing bill (H. R. 7614) to increase pension of	307	35
Tobacco, report of Secretary of State on taxation by Holland of exports of	179	33
Tokio, Japan, estimate of appropriation for rental of legation buildings at	213	33
Tonnage duties, report of Secretary of State on claims of foreign Governments relative to	132	31
Travers, Alice E., message of President vetoing bill (H. R. 6752) to pension	323	35
Treasury Department, annual report on contingent expenditures of	10	20
estimate of deficiency appropriations for custodians and janitors in	199	33
estimate of appropriation for improving sanitary condition of	219	33
estimate of appropriations for printing for	95	30
letter of Secretary relative to salaries in Register's office	99	30
letter of Secretary relative to applying unexpended appropriations to deficiencies	237	33
letter of Secretary relative to salary of Deputy Comptroller of Currency	103	30
letter of Secretary recommending additional clerk in disbursing office of	260	33
Trust funds, report of Secretary of Navy on	264	33
Attorney-General on	271	33
Secretary of War on	278	33
Postmaster-General on	330	35
Secretary of Interior on	168	31
Secretary of State on	362	35
Secretary of Treasury on	293	35
Tuttle, Joseph, message of President vetoing bill (H. R. 7109) to pension	308	35
Two Harbors, Minnesota, estimate for light station at	203	33
U.		
Utah, estimate for furniture for office of governor of	257	33
V.		
Van Etten, Mary A., message of President vetoing bill (H. R. 6170) to pension	326	35
W.		
Wacissa River, Florida, report of engineers on survey of	82	30
Wagon roads. (<i>See</i> Oregon.)		
War Department, annual report on contingent expenditures	8	20
letter of Secretary of War relative to binding for library of	268	33
report of balances due to and from United States on books of	133	30
Washington navy-yard, report of Secretary of Navy on ordnance shops in	139	30
Weil, Benjamin, report of Secretary of State on claim of	284	35
West, Sallie, message of President vetoing bill (H. R. 7222) to pension	313	35

Subjects.	No.	Vol.
Wichita, Kans., letter of Secretary of Treasury relative to appropriation for building at.....	208	33
Willels Point, New York, plans and estimates for buildings at.....	25	25
Wilson, Andrew J., message of President vetoing bill (H. R. 7108) to pension	299	35
Witnesses. (<i>See Courts of United States.</i>)		
Woodson, Mary S., message of President vetoing bill (H. R. 7073) to pension	314	35
Wyoming, letter of Secretary of Treasury relative to enlargement of penitentiary in.....	157	31

REPORT

OF THE

SECRETARY OF THE INTERIOR;

BEING PART OF

THE MESSAGE AND DOCUMENTS

COMMUNICATED TO THE

TWO HOUSES OF CONGRESS

AT THE

BEGINNING OF THE FIRST SESSION OF THE FORTY-NINTH CONGRESS.

IN FIVE VOLUMES.

VOLUME V.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1885.

CONTENTS.

	Page
LETTER OF TRANSMITTAL.....	5
INTRODUCTION.....	11
CHAPTER I.—MODERN INDUSTRIAL DEPRESSIONS	15
Great Britain, 1837-86	16
France, 1837-86	35
Belgium, 1837-86	44
Germany, 1837-86	49
The United States, 1837-78	55
CHAPTER II.—THE INDUSTRIAL DEPRESSION IN THE UNITED STATES, 1882-86.	65
The Extent of the Depression	65
Alleged Causes of the Present Depression	76
Falling Prices	79
Machinery and Over-production	80
The Variation in the Cost of Production	90
The Variation in the Rates of Wages	141
Speculative Railroad Building	242
Crippled Consuming Power, or Under-consumption	243
Tariff Inequalities	250
Miscellaneous	252
CHAPTER III.—THE MANUFACTURING NATIONS CONSIDERED AS A GROUP IN RELATION TO THE PRESENT DEPRESSION.....	254
CHAPTER IV.—SUGGESTED REMEDIES FOR DEPRESSIONS	264
The Restriction of Land Grants to Corporations	271
The Restriction of Immigration	271
The Enactment of Laws to Stop Speculation	273
The Establishment of Boards of Arbitration to Settle Industrial Difficulties.	274
The Contraction of Credit	276
A Sound Currency	276
Commercial and Mercantile Conditions.....	276
The Distribution of Products	277
Profit-sharing	279
The Organization of Workmen; of Employers	286
CHAPTER V.—SUMMARY	290
Contemporaneousness and Severity of Depressions	290,
Causes	291
Remedies	292
APPENDIX A.—Occupations, with Number and Wages of Employés, by Indus- tries.....	295
APPENDIX B.—Earnings and Expenses of Wage Receivers in Europe	411
APPENDIX C.—Synopsis of Labor Legislation in the United States	457

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR, BUREAU OF LABOR,
Washington, D. C., March 17, 1886.

SIR: I have the honor to submit herewith the first annual report relating to the information collected and collated by the Bureau of Labor.

The Bureau of Labor was established by act of Congress, approved June 27, 1884, which provided for the appointment of a Commissioner of Labor by the President, and a Chief Clerk, to be appointed by the honorable Secretary of the Interior, and such employés as might be necessary to conduct the work of the Bureau. No officers were appointed, however, until January, 1885, when, under a commission received from the President, I assumed the duties of Commissioner of Labor January 31, and February 3 Mr. Oren W. Weaver was appointed Chief Clerk. The policy under which it seemed to me best that the operations of the Bureau should be conducted was submitted February 4 in a communication to the Secretary of the Interior, the features of which policy need not be restated. March 11 I submitted for your approval an outline of the first year's work of the Bureau. This outline related to the collection of information relative to industrial depressions, the investigation comprehending a study of their character and alleged causes, whether contemporaneous in the great producing countries of the world, and whether, as to duration, severity, and periodicity, they have been similar in such countries. The outline also comprehended the collection of data relating to the variation of wages in different countries and in different parts of this country, in the cost of living in the same localities, and the cost of production, and, in fact, all such alleged causes of industrial depressions as might offer opportunity for illustration through classified facts. The suggested remedies for such depressions were also comprehended in the outline. March 17, a year ago to-day, you did me the honor to approve this outline of work, when I entered at once upon preparations for carrying it out. Unavoidable circumstances prevented the several

agents of the Bureau getting to their respective fields of operations prior to June 1, as an average date of the commencement of our work. It will therefore be observed that the first year's work of the Bureau has been carried through in less than ten months.

The countries comprehended in the investigation other than our own were Great Britain, France, Belgium, Germany, and, to some extent, Switzerland and Italy. Five agents were employed in the foreign countries and fifteen in this, and to those who remained in the field and carried out their instructions I am under the greatest obligation for the faithfulness and the assiduity with which they performed the duties assigned to them. The results of the investigation relating to industrial depressions are not as complete as I could wish to have them, yet they are far more complete than I had any right to expect them to be. The difficulties attending an investigation of the magnitude of the one projected are great indeed. In fact, a line of work more difficult than that selected could hardly have been adopted. The statistical illustrations of the various features of industrial depressions as presented herein, unless otherwise stated, are the results of original inquiry, and these statistical illustrations, taken in connection with others, which are all from most trustworthy sources and from highest authorities, constitute a grouping of facts relative to conditions claiming the fullest attention, which, so far as I am aware, is novel not only in the grouping but in the extent of their influence. The agents of the Bureau have, as a rule, been met with courtesy and a desire to furnish the information sought; yet it should be distinctly understood that if the manufacturers of any locality miss comparative data in the construction of tables on cost of production, or other tables of great intrinsic value to them, the lack is due to their own failure or that of their associates to give the information required. If the tables on wages and cost of production do not present complete comparative data, the lack of completeness is due entirely to the apprehension of manufacturers that the information required would do them some harm, or to their positive refusal to furnish such information. As it is, these tables comprehend about forty industries, seven hundred and fifty-nine establishments, and about one hundred and fifty thousand employés. Of the seven hundred and fifty-nine establishments, one hundred and eighty-nine reported wages only, one hundred and seventy-seven cost of production only, and three hundred and ninety-three both wages and cost of production. It is seen then that wages were reported for five hundred and eighty-two estab-

lishments, and that the average number of employés for each establishment was two hundred and fifty-six.

The organic law of the Bureau provides that the Commissioner of Labor "shall collect information upon the subject of labor, its relation to capital, the hours of labor, and the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity," * * * and he "shall annually make a report in writing to the Secretary of the Interior of the information collected and collated by him, and containing such recommendations as he may deem calculated to promote the efficiency of the Bureau." With this statutory instruction before me, and in accordance with my own inclination, the matter presented herewith is largely statistical, whether presented in the text of the work or in tabular form. Theoretical discussion has been avoided so far as possible. When speaking of certain influences resulting from the evolution of industrial forces, it is quite impossible to keep entirely outside of theoretical lines, nor is it always desirable, for the conclusions of one who has had the preparation of a report of this kind, and the opportunity to study closely the relations of all the facts presented, should, if impartially stated, have some value, even if they approach a theoretical basis.

Fifteen States in the Union have bureaus with similar duties to those assigned to this office. These State bureaus have been established as follows and in the following order: Massachusetts Bureau of Statistics of Labor, 1869; Pennsylvania Bureau of Industrial Statistics, 1872; Connecticut Bureau of Labor Statistics, 1873 (discontinued 1875, re-established 1885); Ohio Bureau of Labor Statistics, 1877; New Jersey Bureau of Statistics of Labor and Industries, 1878; Missouri Bureau of Labor Statistics and Inspection, 1879; Illinois Bureau of Labor Statistics, 1879; Indiana Bureau of Statistics and Geology, 1879; New York Bureau of Labor Statistics, 1883; California Bureau of Labor Statistics, 1883; Michigan Bureau of Labor and Industrial Statistics, 1883; Wisconsin Bureau of Labor Statistics, 1883; Iowa Bureau of Labor Statistics, 1884; Maryland Bureau of Statistics of Labor, 1884; Kansas Bureau of Labor and Industrial Statistics, 1885. These bureaus are located at the capitals of the States named, and their publications are becoming widely known for the valuable contributions which they make to economic science and literature. They are bureaus distinctly American in their character, although some of the European Governments are now contemplating the establishment of kindred offices.

The law establishing this Bureau, as quoted, calls for such recommendations as may be deemed calculated to promote the efficiency of the office. The comprehensiveness of the law precludes any recommendation as to the range of work which may be undertaken, but I would recommend that the Bureau be given authority to publish specific reports, independently of its annual reports, whenever, in the judgment of the Secretary of the Interior, such special reports might be of value to the public—as, for instance, it might be wise to investigate promptly some great industrial movement and make report thereon—but such a report, delayed until the publication of the annual report of the information collected by the Commissioner, would lose its value. It should follow the collection of the special facts, and at once, in order to possess public value.

I have been fortunate in having the services of Mr. Oren W. Weaver as Chief Clerk of the Bureau. Mr. Weaver brought to the service of the Bureau not only excellent native capacity and ability for its peculiar work, but ten years' practical experience in statistical duties, and my thanks are cordially extended to him.

With the keenest appreciation of your own generous coöperation in the work of the Bureau, and of the kindly confidence which you have always extended to me in the critical work of organizing and carrying out the delicate duties of an office constituted on the basis of the Bureau of Labor,

I am, very respectfully, your obedient servant,

CARROLL D. WRIGHT,

Commissioner.

Hon. L. Q. C. LAMAR,

Secretary of the Interior.

INDUSTRIAL DEPRESSIONS.

INTRODUCTION.

The depressions with which the present generation is familiar belong to the age of invention and of organized industry. Whether these depressions are necessary concomitants of present industrial conditions may be a mooted question, but it is certain that they come with such conditions, and that many features of them must pass away when out of the present-status of industrial forces there shall be evolved a grander industrial system, a system which must be as much grander than the present as the present is grander than that out of which it was evolved. Industrial depressions must not be confused with commercial crises and panics, notwithstanding the effects of one reach into the other; that is, a commercial and financial crisis may take place without immediately producing any industrial depression, although generally, if the effects of such commercial or financial crisis continue for any great length of time, the industries must be involved to a greater or less extent. The present industrial depression is the first of its kind as an entirety, as will appear from the facts to be stated. History is full of accounts of crises of various descriptions, resulting from various causes. Back of the age of rapid transportation, stagnation in any industrial sense might result from various natural causes, such as floods, famines, earthquakes, or from great political catastrophes, or from long and expensive and exhausting wars, but not through the causes which are potent in producing modern depressions; but the regularity and contemporaneity which characterize commercial, financial, and industrial disturbances belong to modern history, and are not seen in the past. Of old, stagnations, when occurring, lasted through long periods. The people might be suffering from depression of some form through a quarter, or a half, or a whole century, and then would come a generation of comparative prosperity. In modern times we have, in the place of the long reaches of the past, short, sharp, and frequent disturbances in the business world; but whether in the olden or in the modern times, the reality of the depressed periods was aggravated by apprehension, and it is therefore never quite safe to assume that contemporaneous accounts of depressed periods are accurate. The fears of men, the apprehension of direful results, the imagination, all these help to enlarge the reality and to cause the effects of a disturbance to be more widely felt. As instances in the past, it is necessary to refer to but two authorities. Rich-

ard Hakluyt, in his "Discourse Concerning Western Planting," written in the year 1584 for the purpose of urging the settlement of this western world, after referring to the discoveries of the French, uses the following language:

"But wee, for all the statutes that hitherto can be devised, and the sharpe execution of the same in poonishinge idle and lazye persons, for wante of sufficient occasion of honest employmente, cannot deliver our commonwealthe from multitudes of loyterers and idle vagabondes. Truthe it is, that throughe our longe peace and seldome sicknes (twoo singular blessings of Almighty God), wee are growen more populous than ever heretofore; so that nowe there are of every arte and science so many, that they can hardly lyve one by another, nay rather they are readie to eate upp one another; yea many thousandes of idle persons are within this realme, which, havinge no way to be sett on worke, be either mutinous and seeke alteration in the state, or at leaste very burdensome to the commonwealthe, and often fall to pilferinge and thevinge and other lewdnes, whereby all the prisons of the lande are daily pestered and stuffed full of them, where either they pitifully pyne awaye, or els at lengthe are miserably hanged, even xx" at a clappe oute of some one jayle."

The other writer to which reference is made is Sir William Petty, the author of the famous "Political Arithmetick, or a Discourse Concerning the Extent and Value of Lands, People, Buildings," etc., published in 1691. Sir William recapitulates the fears of many concerning the welfare of England, as follows:

"That the Rents of Lands are generally fall'n; that therefore, and for many other Reasons, the whole Kingdom grows every Day poorer and poorer; that formerly it abounded with Gold, but now there is a great scarcity both of Gold and Silver; that there is no Trade nor Employment for the People, and yet that the Land is under-peopled; that Taxes have been many and great; that *Ireland* and the Plantations in *America* and other Additions to the Crown, are a Burthen to *England*; that *Scotland* is of no Advantage; that Trade in general doth lamentably decay; that the *Hollanders* are at our heels, in the race of Naval Power; the *French* grow too fast upon both, and appear so rich and potent, that it is but their Clemency that they do not devour their Neighbors; and finally, that the Church and State of *England*, are in the same Danger with the Trade of *England*; with many other dismal Suggestions, which I had rather stifle than repeat."

Sir William undertook to disabuse the public mind of the fears which he recites. These statements are interesting and valuable at the beginning of this report upon industrial depressions, for they teach us to beware of imaginary conditions, to seek leading and direct causes, to study contributory causes, to eliminate remote and incidental causes, to give true value to suggested remedies, and to avoid being led to false conclusions.

Under the investigation undertaken by the Bureau the aim has been to group important facts, so far as possible in the time at its command, bearing upon modern industrial depressions. No necessity exists for studying any species of crises existing back of fifty years ago, because

the regularity with which depressions and crises occur is apparent during that period, and because, too, the accompaniments of the depressions back of that did not involve the modern industrial conditions. No more important and no more vital question could have been selected for the first work of the Bureau of Labor, for the labor question, in a primary sense, stands for the contest between the two elements of production, labor and capital, relative to the share of the profits of production to be allotted to each. Any occurrence, whether of a commercial, financial, or industrial nature, resulting either in a decrease of profits to either labor or capital, or in causing serious fluctuation or inequality in the distribution of such profits, becomes in the largest sense one of the most important features of the labor question. So, while the present investigation was begun during the most serious period of the last industrial depression and closes with all the prospects of the early dawn of prosperity, the information gathered is of permanent value and importance.

The first work, then, is to classify the crises and depressions of the past fifty years for the great producing countries of the world, and to determine how far such crises have been contemporaneous, how far like causes have produced like results, to determine the nature of the present industrial depression as compared with the crises occurring during the period under consideration, and then to take up the various leading and contributory causes of the present depression and to consider such agencies as may be invoked to modify the severity or shorten the duration of future depressions. The Bureau has addressed itself to this work without the conceit of expecting to evolve any economic law relative to the cause or causes of depressions, or to lay down in any dogmatic way any positive remedial solution of such depressions.

CHAPTER I.

MODERN INDUSTRIAL DEPRESSIONS.

1837 - 1886.

A panic or a crisis is usually short, sharp, and decisive in its results. A depression is a condition which has duration of time attending it. Panics and crises may occur without a resulting industrial depression, as has been the case many times, and an industrial depression of much severity may occur without producing a financial or commercial crisis or panic, although financial conditions are always more or less disturbed during the continuance of an industrial depression. The terms crises, panics, and depressions are used under these distinctions.

As already stated, the features of regularity and contemporaneousness of crises and depressions have been apparent since the commencement of this century. Crises and panics, with more or less of industrial depression accompanying them, have occurred in various countries, but there were not such strong connecting influences and facts and associated conditions as have been observed during the past fifty years. The present investigation, then, has been directed, in a preliminary way, to those panics and depressions which have occurred within the period named, they involving nearly all of the phases and conditions which have been developed since the century opened.

The consideration of crises and depressions for one country alone would be very incomplete. The great producing nations of the world, Great Britain, France, Belgium, Germany, and the United States, have been so closely allied in industrial conditions that they really constitute a group of nations which should be considered, integrally and as a whole, in any logical study of panics and depressions. Other states and countries have been more or less involved in all the panics and depressions which have occurred in the countries named, but the great leading influences which are observable in all depressions and panics belong to one or more, or all, of the states mentioned. The grouping of facts, therefore, which constitute the body of this report will, in the main, relate to the great manufacturing countries, with only incidental mention of others.

In stating the facts as they have been found by the agents of the Bureau, many terms are used which are capable of varied application—some even are of doubtful meaning when considered metaphysically,

but all such terms are used in this report in their common acceptance; as, for instance, the term "over-production" is used to indicate that condition of a locality, state, or country when more goods have been produced than are sufficient to meet the ordinary demand. Whether there is any such thing as over-production in the broadest metaphysical sense does not concern the matters in hand. "Cost of production," another expression which invites critical discussion, has been used in accordance with its simplest meaning; that is, in this report it relates simply to the cost so far as labor, material, and the other positive elements of production are concerned. "Under-consumption," which is often erroneously used as another term for over-production, only from a different point of view, means, so far as this investigation is concerned, the incapacity of a people, through crippled power, temporarily, from any cause, to consume what they would in a normal condition be able to consume. It is therefore seen, with these brief statements, that metaphysical definitions are not to be applied to the use of terms having a commonly-accepted meaning.

The best treatment of panics and depressions as they have occurred, with their nature, alleged causes, attendant conditions, and other features, seems to be by years or periods, taking up each country involved in turn.

GREAT BRITAIN.

1837.—For several years prior to the industrial depression of 1837 there had been a general overtrading with America and China on the part of English merchants, such overtrading having been facilitated by the expansion of the Bank of England issues and by a large increase in banking facilities consequent upon the formation of a large number of joint-stock banks. During these years unprecedented importations of cotton and tea were made, and large amounts of English capital had been invested in American securities. Through this division and absorption of capital there occurred a stringency in the money market, and the contraction of the issues of the Bank of England precipitated a financial panic in the latter part of the year 1836. The consequent pressure for money led to numerous failures in the American and East Indian trades, and there was a decline of 50 per cent. in the price of cotton and silk in the spring of 1837. In contrast to the decline in the value of other commodities, the price of provisions advanced so largely that when decreased employment occurred in the manufacturing districts the cost of living for wage earners had been greatly augmented. When the period of greatest depression occurred wheat steadily increased in price, as shown by the following figures of the prices of wheat per imperial quarter in each of the years from 1835 to 1839, inclusive: 1835, \$9.44; 1836, \$11.70; 1837, \$13.40; 1838, \$15.44; 1839, \$16.92. The price of wheat was higher in 1839 than it had been at any time since 1819. The industrial depression and period of commercial

discredit continued through the five years succeeding 1837, prosperity having been much retarded by the poor crops of 1838 and 1839, which necessitated large exports of gold to pay for foreign grain. The industrial depression of this period does not seem to have affected savings banks unfavorably, either as to the number of depositors or amount, of deposits the total number of depositors in savings banks under trustees in the United Kingdom and the total amount of deposits, including interest, being for the year ending November 20, 1830, 427,830 depositors, and \$70,161,292.80 the total amount of deposits. For the year ending November 20, 1837, the total number of depositors was 636,066, and the total amount of deposits, including interest, \$96,195,272. There was a decrease in the number of depositors for amounts exceeding \$1,000, but such had been the case for more than a decade prior to 1837, and the decrease in that year was smaller than usual. November 20, 1838, the total number of depositors had risen to 703,529, and the total amount of deposits, including interest, to \$107,261,184, and the increase in both number of depositors and amount of deposits steadily continued in about the same ratio as that between 1830 and 1838 until the end of the year 1846.

The industrial depression, by many writers, was attributed, first, to competition or the attempts among manufacturers to undersell each other, by which they reduced wages to a low average; second, to the state of the currency and banking system, which afforded at one time undue facilities to overtrading, and, again, caused fatal revulsions in trade, conditions which aided in the reduction of wages below their natural level; third, to the corn laws, as keeping up the price of bread by the exclusion of foreign corn, thus giving a monopoly to land-owners and forcing the foreign capitalist to resort to manufacture instead of agriculture, on account of the corn laws preventing an exchange of produce, and enabling foreign manufacturers, from the cheapness of food abroad and its dearness in Great Britain, to undersell the British manufacturer, results leading to the transfer of cotton manufacture to America and the continent of Europe; fourth, to the faulty methods of manufacture by which large quantities of materials were stolen to such an extent that the sales of goods made from stolen raw material were made at such low rates as to seriously interfere with prices; fifth (and this many writers deemed the principal cause), to the superabundance of weavers, ascribed to the influx of Irish and others into the textile trades, to the necessity the weavers were under to increase their incomes by putting their children at an early age to the looms, to the effects of combinations in keeping weavers from entering into other trades, and to the application of machinery to many fabrics formerly wrought by hand.

The industrial depression beginning in 1837 was the result of financial and commercial causes, the industries becoming involved subsequently, and it lasted until the year 1843.

1847.—During 1843 the great dullness in trade which had existed from the time of the panic of 1837 commenced to disappear. A spirit of renewed enterprise was engendered, and notably manifested itself in the direction of railroad construction. December 31, 1842, there were 1,857 miles of railroad in operation in the United Kingdom. The following table shows the additional miles opened in the United Kingdom in each of the years from January 1, 1843, to December 31, 1852; also the amount of paid-up capital invested in railroads from December 31, 1843, to December 31, 1852, with the gross amounts of the paid-up capital on the respective dates:

RAILROADS OPENED IN THE UNITED KINGDOM, 1843-52.

Year ending December 31—	Miles opened.	Year ending December 31—	Miles opened.
1843.....	95	1848.....	1,182
1844.....	196	1849.....	904
1845.....	233	1850.....	580
1846.....	585	1851.....	289
1847.....	909	1852.....	246

Paid-up capital invested December 31, 1843.....	\$314,547,801 00
Capital invested from January 1, 1844, to December 31, 1852.....	953,447,424 00

Total amount invested December 31, 1852.....	1,267,995,225 00
--	------------------

For several years prior to 1847 the error of 1835 and 1836, of excessive importations of cotton, was repeated. In 1846 there was a failure of the potato crop and a partial failure of the wheat crop, necessitating an importation of grain to the value of \$150,000,000. In 1847 the results of a bad harvest were much more serious than would be the case at the present time. The price of wheat rapidly increased from August, 1846, to May, 1847, but when the apprehension of a failure in the crop of the following year was dispelled the price of wheat declined. The average price of wheat per quarter (8 bushels, or 560 pounds) in each year from 1846 to 1850, inclusive, was as follows:

AVERAGE PRICE OF WHEAT PER QUARTER IN GREAT BRITAIN, 1846-50.

Year.	Price per quarter.
1846.....	\$18 14
1847.....	16 06
1848.....	12 12
1849.....	10 08
1850.....	9 72

The contraction in the Bank of England circulation from September, 1846, to September, 1847, amounted to \$14,050,000, the circulation on the respective dates being: September, 1846, \$107,325,000; September, 1847, \$93,275,000. January 14, 1847, the Bank of England raised its rate of discount from 3 to 3½ per cent., and January 21 to 4 per cent., and finally to 5 per cent. April 8 following. The stringency of the money market continued to increase, until October 25 of that year the rate of discount was raised to 8 per cent.; many failures oc-

curred in September, October, and November, and the year 1847 closed in great gloom. The commercial crisis of 1847 and the suspension of the bank act at once ended the period of industrial prosperity. The abundant crops on the Continent in the year 1847 and the partial repeal of the corn laws in 1846 stimulated the importation of wheat in large quantities, and the prices of this cereal continued to decline for several years, the average price per quarter in 1851 being the lowest since 1780. All other forms of enterprise except that of railroad building were almost at a standstill from 1846 to 1849. As the year 1849 advanced there was a revival of the foreign trade, and this, coupled with the low rate of discount of the Bank of England, which November 22, 1849, dropped to $2\frac{1}{2}$ per cent., together with the depreciated price of many raw materials and the low cost of food, developed great activity in every department of trade. The discoveries of gold in California in 1849, and afterwards in Australia resulted in a demand for shipping and for manufactured goods, and a consequent general rise in prices and wages took place in the years 1851 to 1853. The exports from the United Kingdom doubled in value in five years, and manufacturers and wage earners enjoyed the prosperity resulting from the favorable influences of the gold discoveries, free trade, and rapid transportation. Owing, however, to the excessive and reckless shipments of commodities to the sparsely settled gold regions, many of which shipments did not pay the cost of carriage, a large number of failures took place in the United States, in Australia, and in England in 1854, which, with the declaration of war against Russia, created a stringency in the money market, and an increase in the rates of the Bank of England discounts, the rate June 2, 1853, being $2\frac{1}{2}$ per cent. and June 11, 1854, $5\frac{1}{2}$ per cent. Trade continued to be prosperous, however, until 1857, the anticipations of a general financial panic not being realized in 1854. The depression of 1847 was much more unfavorable to savings banks, both in regard to the number of depositors and amounts of deposits, than was the case during the depression of 1837. The following table shows the total number of depositors and the total amount of deposits, including interest, in the savings banks under trustees in the United Kingdom on the 20th of November of each year from 1846 to 1856, inclusive:

DEPOSITORS AND DEPOSITS IN SAVINGS BANKS UNDER TRUSTEES IN THE UNITED KINGDOM, 1846-56.

Year ending November 20—	Number of depositors.	Amount of deposits with interest.
1846.....	1,108,546	\$161,784,281 00
1847.....	1,096,086	154,406,918 40
1848.....	1,037,422	144,565,300 80
1849.....	1,067,909	147,073,306 80
1850.....	1,113,585	149,799,945 00
1851.....	1,161,696	150,823,656 00
1852.....	1,209,934	164,268,043 00
1853.....	1,260,377	171,563,928 00
1854.....	1,278,459	172,481,019 20
1855.....	1,305,397	175,318,704 00
1856.....	1,343,232	177,112,070 40

It will be seen from the foregoing table that the decrease in the total number of depositors and total amounts of deposits in savings banks under trustees in 1847 and 1848 was as follows:

DECREASE IN DEPOSITS IN SAVINGS BANKS UNDER TRUSTEES IN THE UNITED KINGDOM.

Year.	Depositors decreased.	Amount of deposits decreased.
1847.....	12,460	\$7,324,363 20
1848.....	38,664	9,844,616 60

1857.—The favorable influences which inaugurated the return to prosperity in 1849 were not destined to continue for a protracted period. The cheap rates for money which ruled from 1849, together with the general prosperity of the country, led to great speculation and expansion of credit. The cost of food also increased in anticipation of war with France, and wheat, the price of which in 1851 averaged \$9.26 per imperial quarter, averaged \$12.78 per imperial quarter in 1853, and under the influence of the Crimean war the price was \$17.28 in 1854 and \$17.94 in 1855, the average, \$17.94, in 1855 being the highest price since 1818. The rates of the Bank of England discounts were violently affected during the period of the war. September 13, 1855, the rate was $3\frac{1}{2}$ per cent., and October 18 following the minimum rate had reached $6\frac{1}{2}$ per cent., the average rate for 1855 being $4\frac{3}{4}$ per cent., and for 1856 $5\frac{3}{4}$ per cent., and for 1857 $6\frac{3}{4}$ per cent. The importations of cereals suddenly increased from \$84,042,000 in 1855 to \$110,589,225.60 in 1856, and the exports of gold and silver and specie to pay for food imports increased from \$119,288,625.60 in 1856 to \$161,121,446.40 in 1857. When specie is exported the rate of discount increases, credit contracts, and distrust spreads. The Bank of England rate of discount steadily advanced from $5\frac{1}{2}$ per cent. July 16 to 10 per cent. November 9, 1857, and this financial crisis abruptly ended the period of industrial prosperity. There had been a very gradual lowering of wages from 1854 to 1857, but in sympathy with the decline in the price of food, and the adverse financial condition of the country, there was a fall of about 25 per cent. in wages during 1858. Notwithstanding the fact that almost every industry in the United Kingdom was severely affected by the depression which followed the financial panic of 1857, railroad construction was not materially curtailed, the comparatively low prices of labor and materials which ruled from 1853 to 1864 being a great incentive to continued construction. The following table shows the miles of railroad opened in the United Kingdom in each year from January 1, 1853, to December 31, 1864, inclusive, also the amount of paid-up capital invested in railroads during this period, and the gross amounts of paid-up capital on the respective dates:

RAILROADS OPENED IN THE UNITED KINGDOM, 1853-63.

Year ending December 31—	Miles opened.	Year ending December 31—	Miles opened.
1853.....	350	1859.....	400
1854.....	268	1860.....	431
1855.....	282	1861.....	432
1856.....	375	1862.....	656
1857.....	329	1863.....	771
1858.....	503		

Paid-up capital invested January 1, 1863 \$1,267,995,225 60
 Capital invested from January 1, 1853, to December 31, 1863..... 671,240,624 00

Total amount invested December 31, 1863..... 1,939,235,849 60

In most branches of trade the period from January, 1853, to July, 1857, inclusive, was a fairly prosperous one, the industrial depression being most severely felt during the latter part of 1857 and throughout 1858. In some branches of industry and in the iron-manufacturing trades there were local and short, spasmodic ameliorations even during the latter period; but the years 1859 and 1860 were decidedly prosperous ones in almost every branch of industry.

1866.—The period from January, 1861, to May, 1866, was fraught with many changes, the trade of Great Britain as a whole, however, being quite satisfactory, even though the leading industry, cotton manufacturing, was completely prostrated and the persons employed therein reduced to the direst distress. This period covered what is known as the "cotton famine," which lasted from the latter part of 1861 until 1864, and was caused by the American civil war, and it constituted one of the most distressing periods of depression and consequent suffering, so far as the cotton industry is concerned, that has ever occurred in the annals of any industry. Of course many other industries suffered through sympathy. The rapid decline in the imports of raw cotton into the United Kingdom from the United States after the blockade of the Southern ports is shown by the following figures: 1861, 819,500,528 pounds; 1862, 13,524,224 pounds; 1863, 6,394,080 pounds. In the latter part of 1862 nearly 300,000 spinners, weavers, and other classes of operatives employed in cotton mills were thrown out of work and reduced ultimately to the severest poverty, many even to starvation.

Stimulated by low wages, comparatively light taxation, domestic peace, and general prosperity, there had been a reckless over-production in all branches of the cotton-manufacturing trades prior to the period under consideration. The condition of the British cotton trade in 1861 was similar to what it is at the present time. Manufacturers had pushed their goods into Bombay, into Calcutta, and, in fact, into every obtainable market, and after overstocking all their customers abroad had repeated the same process at home, so that by the autumn of 1861 it became necessary for many manufacturers to stop production; not, then, so much from a lack of raw material as from a lack of demand for the manufactured product. The cotton famine consequently injured

to the benefit of manufacturers and saved the Manchester trade from a severe crisis. The period of greatest suffering in the cotton-manufacturing districts was during the last three months of 1862, after which time the number of persons requiring public relief rapidly diminished. The influence of the times from 1857 to 1866 on deposits is shown in the following table, which includes the total amounts of deposits, with interest, in the savings banks under trustees in the United Kingdom November 20 in each of the years named:

SAVINGS BANKS UNDER TRUSTEES IN THE UNITED KINGDOM, 1857-66.

Year ending November 20—	Number of depositors.	Amount of deposits with interest.
1857.....	1,334,560	\$178,384,978 40
1858.....	1,408,564	173,827,785 60
1859.....	1,508,776	187,180,204 80
1860.....	1,598,778	198,040,166 40
1861.....	1,604,852	199,423,080 00
1862.....	1,558,189	194,703,066 22
1863.....	1,558,089	196,854,473 60
1864.....	1,492,251	188,539,645 00
1865.....	1,457,567	184,681,238 00

The interruption of the cotton industry itself, however, did not produce any great effect on the general prosperity of the country. The continuance of the cotton distress, the demand for money for speculative purposes, and the drain of bullion to Egypt, India, Brazil, and other countries to pay for cotton imports caused the rate of the Bank of England discounts to advance from 3 per cent. May 16, 1863, to 8 per cent. in December following, and although the rate of discount continued to fluctuate most violently throughout the year 1864, even reaching 9 per cent. in May and in September, still a general financial panic was avoided, and from 9 per cent. September 8, 1864, the rate of discount gradually fell to 3 per cent. June 16, 1865. The years from October 3, 1862, to the close of 1865 formed a period of excessive speculation in railroad and other securities, and is particularly memorable for the formation of a large number of joint-stock companies, the whole number registered in the United Kingdom for 1862 being 165; for 1863, 790; for 1864, 997, and for 1865, 1,034. In the formation of these joint-stock companies, having a total nominal capital of \$3,070,195,072.40, which was about 40 per cent. in excess of the entire paid-up capital of all the railroads in the United Kingdom at the end of 1865, the country became pledged during the short period of three years and three months to the dangerous act of converting an enormous amount of floating into fixed capital. When so much surplus capital had been absorbed by the new schemes, the market for the shares became depressed under the influence of continuous sales of stocks, and this fact, coupled with the great fluctuations in the price of raw cotton and the consequent loss to manufacturers, contributed to keep the money market in an unsettled condition, especially during the last quarter of the year 1865.

The closing of the American war brought large orders from the United States for all classes of manufactured goods, and this condition was followed by an increase in the rates of wages, so that in almost every industry except the cotton trade the year 1865 was one of much activity. The year 1866, however, opened with an exceedingly unsatisfactory condition of the money market, the minimum rate of discount of the Bank of England being 8 per cent. in January of that year. Speculation and over-investment in new enterprises brought Great Britain in this year to a crisis. A series of failures commenced in February, and although there was a temporary lowering of the rate of discount to 6 per cent. March 15, still there were so many causes at work contributing to an unsatisfactory condition of credit in the early part of 1866 that the bank rate of discount advanced May 3 to 7 per cent., May 8 to 8 per cent., May 11 to 9 per cent., and May 12 to 10 per cent. The failure of Messrs. Overend, Gurney & Co. precipitated a general financial panic, and for fourteen weeks, from May 12, 1866, the minimum rate of discount of the Bank of England ruled at 10 per cent.

The outbreak of the German war disorganized trade upon the Continent, and in the United Kingdom the cattle-plague, troubles in Ireland, a deficient harvest, and a general election contributed to bring about an industrial depression which greatly impaired the purchasing capacity of a very great body of people.

Some of the causes of industrial depressions arise from failure of crops, epidemics in pastoral industry, cholera, and kindred checks to population and commercial intercourse, unproductive mining and manufacturing adventures, undue expansion and subsequent collapse of commercial credit, caution arising from reasonable anticipation of war or great political changes, periods of exhaustion which soon follow the close of actual wars, failure of banking institutions, railroad, and other corporations to meet their obligations to the money-lending public. No one of the causes enumerated would probably have been sufficient to bring about an industrial depression in 1866; but when a large number of these causes suddenly arose contemporaneously with a deficiency in the American cotton crop and a bad harvest throughout Western Europe, it is not surprising that there was precipitated a great and general financial panic, and that a most distressing industrial depression immediately followed. Prices in most trades during 1866 suffered a severe reduction, averaging about 20 per cent. Wages were generally reduced from 10 to 15 per cent., and the decline in wages continued throughout 1867, and as the cost of food had been augmented by the deficiency of the crops—the potato crop being the worst since 1845-46—much distress resulted.

In financial matters the year 1867 was one of decided retrenchment, which greatly aggravated the almost hopeless condition of the numerous joint-stock companies which had been so recklessly organized and foisted upon the general public in the prosperous times from October, 1862, to January 1, 1866.

The price of wheat averaged \$11.98 per quarter in 1866, \$15.46 per quarter in 1867, and \$15.30 per quarter in 1868. A good wheat crop in 1868, however, and the large foreign importations of wheat, made food cheaper in 1869 than it had been for several years, the average price of wheat per quarter in 1869 being \$11.56, and the cheapening of the cost of food, the low rates ruling for money during that year, and a feeling of greater confidence which followed the successful termination of the Abyssinian expedition, gave trade a more favorable turn.

During the summer of 1869 a rise of 5 per cent. in the wages of the persons employed in the iron trades took place, and this increase was followed in February, 1870, by a further advance of 10 per cent. in wages.

The iron ship-building trades, however, suffered disastrously from 1864, through intervening years, to 1870, and the cotton industry also suffered, especially in 1869, from the increasing competition and the high price of raw materials, which resulted in a diminution of profits to manufacturers and in the closing of many of the less modern mills.

There was a recovery of activity in 1870 and an expansion of trade throughout the year, during the latter part of which the decline in the price of raw cotton ameliorated the condition of that industry, and in general the year was a prosperous one in all the trades.

The sudden outbreak of the Franco-German war in July, 1870, caused a flurry in financial circles, and the Bank of England advanced its rate of discount from a minimum of $3\frac{1}{2}$ per cent. July 21, to 6 per cent. August 4; but by September 29 the rate had fallen to $2\frac{1}{2}$ per cent. Prices and wages in all branches of trades continued to increase to an unparalleled extent, and in February, 1873, the highest price ever paid for Scotch pig-iron was recorded at \$33.12 per ton, \$30.96 having been touched in August, 1872. As an example of the increase in wages during 1872 and 1873 it may be stated that a miner's wages in Scotland averaged \$1.08 per day in 1871, \$1.74 per day in 1872, and \$2.04 per day in 1873. The average price per ton of Scotch pig-iron in each of the years from 1866 to 1872, inclusive, was as follows:

PRICE OF SCOTCH PIG-IRON, 1866-72.

Year.	Price per ton.
1866	\$14 52
1867	15 84
1868	15 06
1869	12 78
1870	18 08
1871	14 14
1872	24 44

The following table shows the additional number of miles of railroad opened in the United Kingdom in each of the years from January 1, 1864, to December 31, 1872, inclusive; also the amount of paid-up capital invested in railroads during that period, and the gross amounts of paid-up capital on the respective dates:

RAILROADS OPENED IN THE UNITED KINGDOM, 1864-72.

Year ending December 31—	Miles opened.
1864.....	487
1865.....	500
1866.....	565
1867.....	393
1868.....	381
1869.....	a417
1870.....	a392
1871.....	(b)
1872.....	438

Amount of paid-up capital invested January 1, 1864..... \$1,940,235,849 60
 Capital invested from January 1, 1864, to December 31, 1872..... 791,191,411 20

Total amount of paid-up capital invested December 31, 1872..... 2,731,427,260 80

a Number of miles constructed.

b The length of line open for traffic at the end of 1868 was 14,628 miles, and at the end of 1871 the length was 15,376 miles.

The total number of joint-stock companies registered in the United Kingdom from January 1, 1866, to December 31, 1872, inclusive, and the total nominal share capital, were as follows:

JOINT-STOCK COMPANIES IN THE UNITED KINGDOM, 1866-72.

Year ending December 31—	Number of companies.	Nominal share capital.
1866.....	762	\$368,759,150 40
1867.....	479	151,031,913 60
1868.....	481	175,332,369 60
1869.....	475	a578,116,408 80
1870.....	505	183,611,895 20
1871.....	821	333,735,910 80
1872.....	1,116	638,598,696 00

a In this year (1869) a company was registered with a nominal capital of \$500,000,000; but its paid-up capital appears at no time to have exceeded \$1,000.

The following statement shows the violent fluctuations to which cotton yarns were subjected during the period from July, 1867, to December, 1872, numbers 32 and 50 twist being selected as standards, and the average monthly market price in Manchester, England, being given:

VARIATION IN MARKET PRICE OF COTTON YARNS IN GREAT BRITAIN, 1867-72.

Months.	Number 32 twist.						Number 50 twist.					
	1867.	1868.	1869.	1870.	1871.	1872.	1867.	1868.	1869.	1870.	1871.	1872.
	Ots.	Ots.	Ots.	Ots.	Ots.	Ots.	Ots.	Ots.	Ots.	Ots.	Ots.	Ots.
January.....	22½	22½	28½	24½	28½	28½	28½	36	35½	28½	28½	39
February.....	25½	30½	30½	22½	29½	29½	31	86	85½	29	44	
March.....	27½	28½	29½	37	30½	30½	35	35½	83	28½	40½	
April.....	33	30	30½	33½	39½	39½	40	36	34½	29½	40½	
May.....	30½	29½	29	23	29	29	39	34½	34½	30	40	
June.....	29	26½	30½	21½	20½	20½	37	35	34½	32	39	
July.....	39	27½	31½	26½	28	38½	35	37	32½	38½	36½	
August.....	27½	25½	33½	23½	26½	33½	23	39	30½	33	34½	
September.....	34½	25½	30½	36½	26½	31½	32	37	30½	33½	33½	
October.....	32½	25	24	28½	26½	27½	31	34	29	31½	33½	
November.....	22½	26½	24½	28½	25½	26½	31	33½	26½	31½	34	
December.....	21½	20½	24½	29½	27	27	26½	30½	34½	28½	36½	

The following table shows the total number of depositors and the total amounts of deposits, including interest, in the savings banks under trustees in the United Kingdom November 20 in each of the years from 1866 to 1872, inclusive:

SAVINGS BANKS UNDER TRUSTEES IN THE UNITED KINGDOM, 1866-72.

Year ending November 20—	Number of depositors.	Amount of deposits with interest.
1866.....	1,398,591	\$173,854,901 84
1867.....	1,385,782	175,868,276 80
1868.....	1,871,844	176,987,681 00
1869.....	1,877,872	180,261,868 88
1870.....	1,884,758	182,194,777 00
1871.....	1,404,078	182,404,774 40
1872.....	1,425,147	191,667,131 48

The following table shows the number of accounts remaining open at the close of each year; also the amount, inclusive of interest, standing to the credit of all open accounts at the close of each year from 1862 to 1872, inclusive, in post-office savings banks in the United Kingdom:

POST-OFFICE SAVINGS BANKS IN THE UNITED KINGDOM, 1862-72.

Year ending December 31—	Number of depositors.	Amount of deposits with interest.
1862.....	178,495	\$8,156,460 80
1863.....	319,600	16,211,904 00
1864.....	470,858	22,966,990 40
1865.....	611,384	31,520,730 00
1866.....	746,254	38,981,640 00
1867.....	854,983	46,799,650 36
1868.....	963,154	55,999,944 00
1869.....	1,085,785	64,916,203 20
1870.....	1,183,153	72,475,999 20
1871.....	1,303,492	81,720,019 20
1872.....	1,442,448	92,728,037 20

1873.—The three years immediately preceding 1873 were years of the greatest commercial activity. The extraordinary demands upon British manufacturers, owing to the enforced suspension of production in France and Germany during the progress of the Franco-German war, led to an enhancement in the price of labor and raw materials. It was during this period that British trade attained its greatest prosperity. The defeat of France, and the exaction from her of an enormous indemnity by Germany, resulted in the imposition of onerous taxes, which crippled the industries of the former country. A vast impulse to the financial and trade enterprise of Great Britain thus ensued. The iron ship-building industry was in a most prosperous condition, the demand for cotton and woollen manufactures constantly increased, and the augmenting demand for every description of iron resulted in general prosperity, not only in that, but also in the coal trade. Labor was very generally employed at remunerative rates; but December 1, 1872, notice was given of a reduction in wages of 10 per cent. in the coal and iron trades in South Wales, which resulted in immediately throwing out of employment some 65,000 colliers, miners, and iron workers. This strike continued for a

period of eleven weeks, being kept alive by a strong organization of the trades unions, which distributed in that period a sum of \$200,000. The loss of wages, however, amounted to \$4,000,000.

The year 1873 opened with other premonitions of coming financial and labor troubles. The enormous demand for all classes of manufactures had carried prices and wages to an unsafe height. The Bank of England discounts, however, continued to fall during the first quarter of the year. March 25 the minimum rate was $3\frac{1}{2}$ per cent., but by June 17 following it had reached 7 per cent. It afterward rapidly declined to 3 per cent. August 21 of the same year. This condition was fed by the reaction caused by the partial recovery of Germany and France from the effects of the Franco-Prussian war, and by this reaction, or suffering under its effects, Great Britain was in a condition to receive great harm from the commercial crisis in the United States in September, 1873, which effects also reached in succession various countries of Europe, Asia, and South America. The Bank of England rate of discount rapidly advanced from a minimum rate of 4 per cent. September 25, 1873, to 9 per cent. November 1 following. This precipitated a financial panic, the immediate effect of which was to depress wages and prices in every branch of industry. A vast transference of floating to fixed capital had taken place in the extension of railroads in the United States and in all other parts of the world, and the concurrent rise of wages, price of materials, and coal had so enhanced the working expenses of all these railroads as to more than absorb the natural increase in traffic receipts. The decline in wages and the prices of commodities continued through the years 1874, 1875, 1876, and 1877.

The persons employed in the iron, coal, and iron ship-building trades were not satisfied to allow a natural fall in wages, and many disputes occurred, which resulted in a great loss of time and production. In the course of the year 1874 the wages of iron workers were reduced 35 per cent. The year 1875 was one of even greater distress and stringency than the preceding; the business failures of this year, amounting to about \$250,000,000, returned not more than 10 per cent. on the average out of the liabilities. The monetary uncertainty was greatly heightened during the year 1875 by a fall in the price of silver, consequent upon its demonetization by Germany and an increased production on the Pacific coast, the product of that section being \$46,000,000 in 1874 and \$56,000,000 in 1875. The successions of poor harvests in the six years from 1873 to 1879 led to increasingly great distress in the agricultural sections. The very poor wheat crop of 1876 required large supplies to be purchased abroad, but the lower prices of meat and other necessaries somewhat alleviated the prevailing distress.

In 1877 the iron trade suffered, not only from the slackness in respect to the demand for manufactured materials, but from the fact that cheapened steel was steadily supplanting the former metal and aggravating the losses of those who had investments in iron plants.

The political uncertainties in Europe and Asia, such as the Russo-Turkish war and the trouble between India and Afghanistan, caused much disquiet in commercial circles throughout the whole of the year 1878. The failure of the City of Glasgow Bank was followed by many other banking failures, and a period of gloom ensued. Great losses were incurred in almost every branch of business, and in the coal and iron trade especially failures were numerous, consequent upon the general fall of prices.

In the latter part of the year 1879 trade was quickened by increased orders from the United States, which resulted in raising the price of most commodities. The embarrassed condition of the cotton industry, over which ruin had seemed to be impending, improved at the close of the year.

The depressed state of trade during 1877, 1878, and 1879 caused reductions to the extent of 20 per cent. to be made in the wages of persons employed in cotton spinning and weaving, but through improved trade in 1880 and 1881 there was an advance in this industry of 10 per cent. There was a general revival of trade in all industries during the years 1880 and 1881, but the quickening of business during these two years led to large over-production in almost every important branch of industry, and this over-production was continued through the years 1882 and 1883, and resulted in the serious and general depression of 1884.

1884.—The present prolonged depression of trade in Great Britain is largely owing to the succession of bad agricultural seasons, coupled with large over-production in nearly all the leading manufactures, and with the practical insolvency of many of the minor money-borrowing states of Europe and the American continent, which, having obtained large loans of money from England, have defaulted in the payment of both interest and principal. Great Britain is becoming increasingly dependent upon other nations for her food supplies. Almost a million acres, as is shown by the following table, formerly devoted to the growing of wheat, have gone out of cultivation since 1870. The following table shows the total wheat acreage of Great Britain in each of the years from 1870 to 1884, inclusive:

WHEAT ACREAGE OF GREAT BRITAIN, 1870-84.

Years.	Acreage.
1870	3,500,543
1871	3,571,804
1872	3,568,957
1873	3,490,390
1874	3,030,300
1875	2,342,481
1876	2,095,957
1877	2,168,540
1878	3,218,417
1879	2,800,944
1880	2,909,438
1881	2,805,809
1882	3,003,900
1883	2,013,102
1884	2,677,038

The increase in the imports of the leading articles of food consumption since 1870 has been very great indeed. In payment for her food Great Britain has been reducing her holding of United States Government bonds and railroad mortgages, and a similar decrease has also taken place in her holding of Russian and other European bonds, and these foreign countries have in some instances increased their interests in British funds. The increased facilities which have arisen for procuring food supplies have not been followed in the same ratio by opportunities for selling or exchanging British manufactures. The abundant import of wheat from America, from Russia, and from India has reduced the price of this cereal to a lower point than has been reached since 1762.

The land system of Great Britain is also proving very detrimental to the agricultural interests, for the reason that land in rural districts is owned by a very small and constantly-decreasing number of persons, many of whom are so burdened that it is impossible for them to do justice to the land or improve it. The people of Great Britain appear to be becoming more and more divorced from the soil, and their knowledge of agriculture does not now compare favorably with that of the peasantry of some other nations of Europe. The class of men, formerly so numerous in Great Britain, who cultivated their own land is now almost extinct, and the agricultural laborers are entirely severed from any permanent interest in the land. The effects of the land laws are to force the people to abandon the soil, thereby greatly depressing the home trade and manufacturing interests by curtailing the demands of the rural population. In the face of the decline in the price of wheat and the evil effects of the land laws, it is probable that there will be a still further reduction in the wheat acreage in Great Britain.

The following table shows the average gazette prices of British wheat per imperial quarter (8 imperial bushels, or 560 pounds) for each of the years from 1870 to 1884, inclusive :

GAZETTE PRICES OF BRITISH WHEAT, 1870-84.

Years.	Prices.
1870	\$11 26
1871	13 60
1872	12 68
1873	14 06
1874	13 36
1875	10 84
1876	11 09
1877	13 62
1878	11 14
1879	10 54
1880	10 64
1881	10 88
1882	10 82
1883	9 98
1884	8 56

The currency question, so far as it relates to bimetalism, is also an alleged element in the present depression. British enterprise and com-

merce with silver-using countries, it is asserted, are hampered in consequence of recent monetary changes adversely affecting the price of silver in Europe, and the consequent appreciation of gold and the depreciation in value of all commodities.

The total value of the cotton manufactures of Great Britain is, roughly speaking, \$400,000,000. Of these manufactures there are exported about \$300,000,000, of which about \$150,000,000 go to silver-using countries. Thus it appears that one-half of all the cotton exports are sent to countries where they are not sold for money, but bartered for silver—a commodity which must afterward be sold for gold in order to become money to the vendors. Recent events make it probable that gold will continue to become dearer, and as a consequence silver must become cheaper, and Lancashire men fear they must face a declining value in that for which nearly one-half of their cotton manufactures are exchanged.

Silver has depreciated in value from two causes, one of which was the action of the Latin Monetary Union, and another the large recent production of the metal. Its value has been upheld mainly by the action of the United States, and there is so much that is artificial in its position that it is not possible to ascertain its probable future. It is partly from this uncertainty that the entire cotton industry of Great Britain suffers. The present depression in cotton manufacture in Great Britain is, however, chiefly due to over-production. The rapidly-increasing profitability of cotton spinning and weaving in past times led to a considerable increase in the number of mills in England, and an excessive expansion of the producing capacity. Had there been a slower multiplication of cotton mills, or, in other words, a natural increase in the producing capacity, there would probably have been a decline in the price of the raw material and fewer fluctuations in the rates of wages.

The planters and cotton operators have so far largely been benefited by the excessive competition of the mill owners in extending their power of production without reference to the real wants of their markets.

For numerous reasons the cotton trade deserves, in the present industrial crisis, a very careful investigation. It affords, in all its phases, the most flagrant example of over-production, and consequently the best promise of determining the question whether over-production is or is not an evil to both capital and labor.

The facilities for manufacturing, owing to the rapid formation of joint-stock companies, are in no case more markedly illustrated than in the case of the Oldham Spinning Companies. Whereas borrowing powers in most public companies are limited and regulated by amount of paid-up capital, no limit whatever is placed by act of Parliament upon the borrowing powers of the Oldham limited concerns. They have the power to borrow as much money as they possess ability to persuade lenders to advance, and they can then proceed to mortgage the mill, machinery, stock, and even the very book debts. If it be said that this

is an undoubted right, and that the open loans are upon short notice of repayment, it still must be apparent that the money can only be repaid to a limited extent, as a large portion of it is in the plant or working capital, and, in times of borrowing, cotton spinning has been developed to that point at which the percentage of profit is extremely small and the margin between the price of the raw material and the price of the manufactured yarn is so narrow as to make its production extremely hazardous to the capital invested.

The following tables show the average prices in Manchester, England, from January, 1873, to March, 1885, inclusive, of numbers 32 and 50 twist cotton yarn:

VARIATION IN MARKET PRICE OF COTTON YARNS IN GREAT BRITAIN, 1873-85.

Month.	Number 32 twist.*													
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	
January	27	24	22½	21½	21½	18½	16	20½	19½	19½	17½	17½	17	
February	27	23½	22½	20½	19½	18	15½	23	19½	19	17½	17½	16½	
March	27	23½	23	19½	18½	17½	15½	22½	18½	19½	16½	17½	16½	
April	26½	23½	23	19	18	16½	17	21	17½	19½	16½	17½	.....
May	26½	24	22½	17½	17½	16½	18½	19½	17½	19	17½	17½	.....
June	26½	23½	22½	17½	18½	17½	18½	19	17½	19½	17	17½	.....
July	25½	23½	21½	16½	18½	17½	17½	19	18	19½	16½	17½	.....
August	25½	22½	21½	17½	17½	18	17½	18½	18½	19½	16½	17	.....
September	24½	22½	21½	17	17½	17½	18	18½	18½	19	16½	17	.....
October	24½	22½	21½	17½	18½	16½	18½	18½	18½	18½	16½	16½	.....
November	24	22½	21	19½	18	16½	19½	18½	18½	18	17	16½	.....
December	24	22½	21½	19½	18½	15½	20½	19½	18½	17½	16½	17	.....

Month.	Number 50 twist.													
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	
January	36½	32	29½	29	26½	23½	23½	20½	25½	29½	24½	23½	21½	
February	36½	31½	30	28½	26½	22½	23	20½	25	29½	25½	23½	21½	
March	36½	31	30½	27½	25	23	22½	29½	23½	24½	25	25½	20½	
April	36½	31	30½	26½	23½	23	22½	28½	24	25	25½	24	.....
May	35½	31	30	25½	23	22½	25	27½	22½	25½	26	24	.....
June	31½	31	29½	24	23½	23½	25	26½	22½	27	25½	23½	.....
July	34	30	29	22½	23½	24	24½	24½	23½	28½	24½	23½	.....
August	34	29½	29	23	23	26	24	24½	23½	29½	24½	22½	.....
September	34½	29½	29½	22½	23½	24½	24	24	23½	28	24½	22½	.....
October	34	29½	29	22½	24	25½	24	24½	23½	26	23½	21½	.....
November	33½	29½	28½	24½	23½	22½	24½	24½	24½	25½	23½	21½	.....
December	32½	29½	28½	25½	23½	23	26	25½	30½	24½	23½	21½	.....

The depression in the British iron trade is largely owing to the fact that the United States, Germany, Belgium, France, and Russia have of late years very largely curtailed their purchases of pig-iron from Great Britain; consequently the area of consumption to which British manufacturers can look for a market is greatly diminished, and competition has been sharpened by the fact that the countries which were previously Great Britain's best customers are at times supplying the English home market with manufactured iron, and also successfully competing with English makers for the trade of other markets. The export of rails from

Great Britain has largely decreased since 1883, and the decline is especially noticeable with South America, the only checks to the ruinous decline in exports to foreign countries being the increased demand from the colonies, especially from India and British North America. The merchant-iron trades, with the exception of the tin-plate branch, have also greatly suffered in consequence of the diminished foreign demand. The lower royalties, rents, and railroad charges make Germany and Belgium severe competitors with England in the iron trade, and the competition of Belgium is becoming especially noticeable in the large quantities of rolled-iron beams and other forms of manufactured iron which are now being imported into Great Britain.

As another example of the cause of the present depression, the iron ship-building trade may be mentioned as second only to cotton in prominence. During the prosperous period subsequent to 1879 the mercantile marine had been earning large profits, averaging from 25 to 30 per cent. interest on capital in steamers and sailing vessels, and in consequence of these not uncommonly large dividends an immense amount of capital was invested in the shipping trade. New fleets and lines of merchant steamers have been built, equipped, and placed upon the old ocean routes. This severe competition, together with the falling off of the world's trade, reduced freights to a ruinously low figure, with the result that vessels in many instances have been worked, even though they failed to pay expenses, and other vessels have been laid up at a considerable loss to their owners. The demand for shipping shares during the period from 1879 through 1883 was so great that shipping companies were organized and managed in many of the inland towns of Great Britain.

The year 1884 will be long remembered as a most disastrous one in the history of iron ship-building. At no time since this important industry came into existence has a collapse so sudden, so widespread, and so injurious in its effects been witnessed. The effects of this depression were not confined to a single district, but extended over the Clyde, Tyne, Wear, Tees, Humber, Mersey, and Thames. Many thousands of workmen have been dismissed from lack of work, and in numerous cases the ship-building yards have been totally closed.

As has been previously stated, the depression in the woollen manufacturing industries of Great Britain is not so severe as in all other largely developed trades. The conservative manner in which the woollen trade has been developed, and the fact that manufacturers depend upon receiving positive orders before producing large quantities of any pattern, have prevented serious over-production and consequent distress. A very small increased demand in the woollen industry would probably make it at the present time the most flourishing branch of British trade.

The trades centering at Birmingham, such as the hardware and tool-making industries, and the manufacture of fowling-pieces, are probably the most depressed of any in Great Britain, and the result has been to throw out of employment a very large number of workmen, among

whom there is more suffering than is the case in any other manufacturing district. The depression in the trades named is largely owing to the severe competition of the United States in the production of tools, light hardware, and clocks, and also in the competition of Belgium in the manufactured-iron trade, and of Germany in the manufacture of iron, iron nails, etc.

The following table shows the miles of railroad opened in the United Kingdom in each of the years from January 1, 1873, to December 31, 1884, inclusive; also, the amount of paid-up capital invested in railroads during that period, and the gross amounts of paid-up capital on the respective dates:

RAILROADS OPENED IN THE UNITED KINGDOM, 1873-84.

Year ending December 31—	Miles opened.	Year ending December 31—	Miles opened.
1873.....	262	1879.....	363
1874.....	367	1880.....	237
1875.....	209	1881.....	242
1876.....	214	1882.....	283
1877.....	205	1883.....	324
1878.....	256	1884.....	183

Amount of paid up capital invested January 1, 1873 \$2,731,427,260 80
 Capital invested from January 1, 1873, to December 31, 1884..... 1,116,801,700 80

Total amount of paid-up capital invested December 31, 1884 3,848,228,961 60

The following statement shows the number of miles of railroad in England and Wales, Scotland, and Ireland at the end of the year 1884:

MILES OF RAILROAD IN THE UNITED KINGDOM IN 1884.

Divisions.	Miles.
England and Wales.....	13,340
Scotland.....	2,999
Ireland.....	2,525
Total.....	18,864

The total number of joint-stock companies registered in the United Kingdom during the period from January 1, 1873, to December 31, 1884, inclusive, and the total nominal share capital, were as follows:

JOINT-STOCK COMPANIES IN THE UNITED KINGDOM, 1873-84.

Year ending December 31—	Number of companies.	Nominal share capital.
1873.....	1,234	\$729,871,416 00
1874.....	1,341	530,592,302 40
1875.....	1,173	395,746,464 00
1876.....	1,066	231,907,608 00
1877.....	990	320,640,892 50
1878.....	886	325,731,490 00
1879.....	1,034	262,726,625 00
1880.....	1,302	808,638,345 60
1881.....	1,581	1,011,415,953 60
1882.....	1,632	1,222,772,788 80
1883.....	1,766	804,864,897 60
1884.....	1,541	604,758,854 40

The following table shows the total number of accounts remaining open and the total amounts of deposits, including interest, in the savings banks under trustees in the United Kingdom on November 20 in each of the years from 1873 to 1884, inclusive:

SAVINGS BANKS UNDER TRUSTEES IN THE UNITED KINGDOM, 1873-84.

Year ending November 20—	Number of depositors.	Amount of deposits, with interest.
1873.....	1,445,489	\$194,524,085 04
1874.....	1,463,560	199,042,424 04
1875.....	1,479,199	203,468,917 42
1876.....	1,493,401	207,791,261 80
1877.....	1,509,847	212,845,638 80
1878.....	1,515,725	212,428,272 88
1879.....	1,506,714	210,229,466 82
1880.....	1,519,695	210,074,638 06
1881.....	1,532,486	211,861,706 52
1882.....	1,552,989	214,140,387 14
1883.....	1,566,184	215,688,124 82
1884.....	1,582,474	220,066,258 62

The following table shows the number of accounts remaining open at the close of each year, and the amount, inclusive of interest, standing to the credit of all open accounts at the close of each year, from 1873 to 1884, inclusive, in the post-office savings banks of the United Kingdom:

POST-OFFICE SAVINGS BANKS IN THE UNITED KINGDOM, 1873-84.

Year ending December 31—	Number of depositors.	Amount of deposits, with interest.
1873.....	1,556,645	\$101,606,186 00
1874.....	1,668,733	111,155,851 20
1875.....	1,777,103	120,890,256 00
1876.....	1,702,374	123,583,440 00
1877.....	1,791,240	137,965,632 00
1878.....	1,892,756	145,975,502 40
1879.....	1,988,477	153,668,248 20
1880.....	2,184,072	161,926,287 00
1881.....	2,607,612	173,733,576 00
1882.....	2,858,976	187,387,540 80
1883.....	3,105,642	200,490,278 40
1884.....	3,333,675	214,914,110 40

This account of the industrial depressions of Great Britain has been made quite extensive because so many of the conditions which have resulted in panics and depressions there are found in other countries, and because, again, Great Britain has been and is the leading manufacturing country in the world. The results of her enterprise have produced certain conditions, however, which are found existing in the other countries involved in this investigation, which bring all these countries to an industrial state never before experienced, and which mark the present period as an epoch in industrial development. This condition will be brought out in the proper place.

FRANCE.

1837.—M. Clement Juglar, in treating of commercial and other crises, insists that the causes of depressions must be sought not in the troubles and revolutions of the time, but in the increase of speculation and of production. Referring to the period under discussion, it seems to be the opinion of the writer mentioned and of other eminent French authorities that the general liquidation necessary to a revival of commerce produces crises, and that such crises are the true test of the soundness of commercial houses, these crises being caused by, or this necessity of liquidation being founded on the fact that many have engaged in enterprises beyond their means and necessarily succumb, while others, robust enough to resist all financial storms and freed from the obstacle of imprudent speculation, recommence the course of their operations with a new vigor. A manufacturer, the writer says, whose products are in demand, cannot be wise enough to limit production to the demand, for, by the natural force of circumstances, he is compelled to extend his operations so long as the demand continues. When suddenly speculation is arrested, production which has been commenced and carried on upon a grand scale must be lessened, wages must be reduced, and laborers thrown out of employment. Confidence gave credit, and the facilities which it procured warranted operation on a large scale without exciting much solicitude as to prices; but through the difficulty of exchanges specie reserves were drawn upon, and crises consequently occurred, business transactions were arrested, suspensions began, and credit completely disappeared. This condition, however, in the period named in France, was not prolonged for many months, but then followed the period of liquidation, which lasted for two years or more, during which languor of trade, which was limited entirely to cash operations, prevented speculative production. The former continued increase of prices was followed by a rapid fall, so that every trade which depended upon credit for its principal support was partially arrested. The principal cause of these embarrassments was the exaggeration of exterior and interior commerce, resulting from the inflation of prices by speculation. It was found, under such conditions, impossible to dispose of productions at constantly-increasing cost while exchanges were embarrassed. Under such circumstances merchandise was offered for sale under rapidly-falling values. Such decline amounted in a few months to 25 or 30 per cent., thus completely effacing at once the increase of years. Credit tumbled to the ground, premiums disappeared, stocks no longer found purchasers, liquidation became necessary, and losses were suffered where fortunes had been expected.

1847.—The crisis of 1847-48 was a purely financial one, no question existing or being raised as to an excess of manufactured products. There was a scarcity of capital, and consequent difficulties of discounts

and the disappearance of coin. The first cause of the evil of the year, as it appeared to the people, arose from the inclemency of the season, from which resulted a deficit in crops; and inundations, which, by destroying property, resulted in partial poverty. Had bad crops been peculiar to France their influence would not have been so great, but sufferings of a similar kind occurred in other countries and had their influence, which was strengthened by speculation in France enhanced by the foreign capital consequently attracted thither. Whatever crisis occurred at this period antedated the political events of 1848, and might be regarded as a contributory cause of such events rather than as a consequence. Other influential causes in producing the panic of this period were the exaggeration of Government expenses, the maintenance of an armed peace, and an over-investment in railroads and other great enterprises. French opinion (*a*) is that the crisis was first felt in England, then in Russia and Germany, France resisting its influence for a long time, the power to do this being attributed to national wealth and the nation's metallic currency. The modern system of industry had not taken such deep root in France at this time as to be materially affected.

1856-57.—Prior to this period there had been a very rapid increase in the mileage of railroads built, and railroad shares were to an exaggerated extent floated on the market. Many attributed the crisis of this period to the natural effect of war. France had found it necessary to borrow \$300,000,000, and all through Europe similar loans had been negotiated to meet the needs of the situation. All this money was used in the payment of sterile expenses and to carry on unproductive labors. The industrial enterprises of France had been carried beyond proper limits, while bad crops contributed their influence. Many believed the crisis to have originated in Germany, this country having multiplied its industrial enterprises with insufficient capital, and being obliged to call foreign capital to its aid. The German financial crisis reacted on French markets by raising the rate of discount and reducing prices generally. The change of relationship between gold and silver also was alleged as a contributory cause of the panic; but in general the depression in France for the period of 1856-57 was almost wholly the result of financial difficulties, feverish speculation, war expenses, etc. Some authorities consider that the financial crisis in the United States contributed largely toward producing that of France, through the suspension of numerous banks. One of the authorities of the time, M. Baudrillart, in November, 1857, expressed himself as follows:

“In virtue of the economic solidarity which exists between nations, the crisis originating in the United States has propagated itself with a rapidity and to an extent without parallel. The whole of Europe has felt the blow. England, as a result of its vast and important relations with the United States, has suffered sooner and worse than any other country. The affairs of England with the United States amount to an annual

sum of \$200,000,000, and it is well known that the United States, in purely commercial transactions, is always enormously indebted to England. Besides, the capital of the United States which has been recently withheld from European enterprises has been engaged to the extent of \$400,000,000 or \$450,000,000 in the railroads and banks of the United States. Consequently many important failures in London."

The same authority considers among the causes of the crisis in the United States, excess in enterprises, abuse of speculation, and the free banking system, while a prominent financial publication of the time gives as the reason of the American crisis a bear speculation audaciously organized in the principal cities of the United States against all investments, the cause of the success of this speculation having been the fault committed by railroad companies in the constitution and repartition of their capital, a great many of the railroad bonds being issued for short periods, and falling due in 1857; that American speculators, recognizing this fault, attempted to injure the credit of the companies involved, so that it would be impossible for them to meet their engagements, and that in this the speculators succeeded, and the railroad companies could neither pay their obligations nor renew them. The same authority states that while French capital was not engaged in American enterprises, the commerce of France with the United States was important, and the consumption of such a market being restrained reflected seriously upon French industry. Other authorities, contemporaneous with those just referred to, did not believe that the French crisis was the result of the one in America, but that every crisis results from a want of equilibrium between production and consumption, and that such equilibrium can be destroyed in two ways, by excess of production or by diminution of consumption, and that France was in the latter condition. These authorities took the ground that too many railroads had not been built in France, but that traffic had ceased to develop, owing to a want of commercial activity. Crippled consumption was attributed to the long agricultural crisis resulting from the bad crops of the few years previous to the period under consideration. From all sources it is safe to conclude that the crisis in France in 1856-57 was like the crises in other countries, and was the result of financial difficulties, and that the United States cannot be considered the source of the generally-prevailing monetary disturbances of the period.

1866-67.—The crisis of this period was largely agricultural in its nature, and it was variously attributed to the amount of money devoted to the maintenance of an armed peace, to the increase in taxation, to the investment of savings in unproductive enterprises, to high rates of wages, and to the low prices of grain and other agricultural products resulting from excessive production. The suspension of a great bank in London caused a temporary monetary panic and affected many establishments. M. Garnier considered that the cause of the difficulty in London was a development of financial speculations following a series

of prosperous years, and the formation of many stock companies, and then the interruption of these affairs by political occurrences in Europe. The immediate apparent cause of the crisis was the failure of Overend, Gurney & Co. M. Juglar, before quoted, considers that the crisis in England of the period named was neither a monetary nor a commercial one; that the market, encumbered by the paper of many commercial enterprises, had been surprised by the war measures of Italy and Prussia, and the suspension of several large establishments. He also attributes the cause of the crisis in London to the formation of a large number of limited liability companies. M. Reybaud, of the Institute of France, and a very high authority, stated in December, 1867, that the causes of the crisis were the failures of credit, troubles of circulation, and the excessive oscillations in the price of merchandise, and the scarcity of grain. The industries of France, however, were not involved to such an extent as to justify one in designating the period of 1866-67 as one of great industrial depression. Whatever depression existed industrially was secondary to financial difficulties.

1873-78.—Excessive speculation again comes in as one of the leading causes of the crisis of 1873, resulting in an industrial depression which lasted until 1878. The payment of the French indemnity, as stated under Germany, resulted in a speculative fever in Germany, and its influences were widely felt. The best authorities considered the crisis not only a bourse panic but a general one, resulting from the exaggeration of enterprises and the fever of speculation caused by the previous great issue of paper money. The recent war troubles and the changes resulting therefrom, of course, had a direct and largely controlling influence in the financial and industrial troubles of France during the period named. The war between Austria and Prussia and that between Germany and France, resulting in an enormous increase in national armaments, must have been potent causes, and yet the situation of France was in many respects better than that of any other nation, because it was her period of self-denial and of saving. Contemporary French writers were fond, however, of attributing the crisis principally to the United States and Germany, alleging that in the United States the protective tariff had encouraged enterprises of all kinds—mines, factories, railroads, etc.—while the increase of the cost of production here had prevented protected industries from finding a market abroad. However potent the last reason may have been, with the facts of the Franco-German war and the baneful financial influences following, it is hardly correct to say that the European difficulties of this period arose in the United States—a theory, however, which has found general acceptance in all countries involved in the general crisis of 1873.

The industrial depression resulting from the financial difficulties in France and other countries continued until 1878, and was a result of financial panics rather than of purely industrial causes, the industries being involved in the matter secondarily, as in the previous periods.

1882-86.—France has experienced during this period the same difficulties that have arisen in the other nations given to mechanical production. She has sought to equip her industries to an extent which would enable her to supply her home market, and thus become independent of other nations. The fact that this period was not ushered in by any exciting financial panic has caused great inquiry as to the influences which have led to the prevailing depression. In 1884 a commission was appointed by the French Chamber of Deputies to report on the condition of industrial and agricultural laborers in France, and this commission secured much valuable evidence as to the causes of the industrial depression prevailing at the time, and which has not yet ceased. It was shown that consumption had not kept pace with industrial production under the stimulating influences of French legislation. Excessive cost of transportation, the want of protection, competition with foreign nations paying less wages to a class of laborers who can support themselves at less expense, and the excessive increase in manufacturing establishments, were alleged as the most potent causes of the depression in France, and the complicated questions of over-production and crippled consumption have troubled the French people the same as the peoples of other nations; for producers, seeing their resources diminished and their incomes decreased, have been compelled to lessen their consumption, and in the same way the laboring classes, as the result of the reduction of wages, have consumed and expended less. High taxes have an unfavorable influence on wages and industry, for, as French authorities consider, while these matters influence all classes of citizens, they more particularly affect the commercial and industrial classes. The tax burdens of France resulting from the disasters of 1870-71 have not yet passed away, in their estimation, and while French manufacturers have been seeking to supply the home demand, in which they have met with great success, the burden of taxation has placed them in a position of inferiority as compared with some of their foreign competitors. The French complain much of American competition, and say that while the United States is, as yet, one of the most important markets for Parisian products, the American manufacturers begin to compete with them in their markets of exportation and sometimes even in their own home markets. Many authorities consider that one reason of French depression is that French machinery is, in part, somewhat superseded, and that the new industries which are created in other countries are furnished with new and perfected machinery, which places the French producers at a disadvantage. The excessive cost of railroad transportation has had a serious influence in the present depression.

M. Corbon, of the French Government, is authority for the following statement:

“There are two distinct sorts of crises, the one temporary and the other persistent and profound. The temporary crisis may be attributed to two causes: First, the excessive production of things which are not of the first necessity, and for which there is an insufficient demand.

All Europe and even America have produced an enormous quantity of these articles. Then there has been an excess of unproductive enterprises, and particularly in France. In Paris and in all the important cities an enormous expenditure in labor and capital has been incurred for embellishments which, good in themselves but not having been opportunely made, have contributed to determine the crisis."

The same senator states that foreign competition may be considered as a persistent cause of the present depressed condition of France.

M. André Lyonnais, a prominent representative of the workingmen, and recently elected a member of the Chamber of Deputies, thinks that while the depression is general, it is felt to a greater degree in France for the reason that the workmen are not well organized, and that employers are still less organized. He states that England supports a crisis better than France, because, in the first place, the workmen and the employers of England are better organized; and, in the second place, because England can avail herself of a much more extended market; that if the French produce in enormous proportions, they cannot always be their own consumers, and that France must consequently seek consumers in foreign countries. The same authority considers France suffering from inferior means of transportation.

A very wide consideration, however, of the utterances of the best authorities, and of the present condition of the French industries, discloses no other prominent causes of depression peculiar to France alone—causes that are not operating or have not operated in producing the general depression prevailing in all countries devoted to mechanical pursuits. These general causes are more fully set forth in Chapter III, relating to the general industrial situation of the countries involved in this investigation. It is the first depression of its kind that has appeared in French industrial history, and is not one of those crises which present themselves periodically, and which are caused or ushered in by financial panics.

The general and the special question, so far as France is concerned, is very well summed up by M. Dietz-Monnin, president of the Chamber of Commerce of Paris:

"A depression in business affects other nations, and it results from general causes. These are the unproductive expenses resulting from an armed peace; the excess of production by the parallel development in industry in every country; the propensity to speculate; the competition between the productions of every country on the globe, as a result of the rapidity of communication and of the facility of transportation. As regards France, the particular causes of the depression in her industries may be attributed, above all, to the bad crops, and to the phylloxera; to the considerable taxes resulting from the war; to the reconstitution of our means of defense; to the excessive extension of public works of all kinds; to numerous enterprises commenced, and not yet finished; to the financial crisis, the effects of which are still felt, principally in the industries of luxury; to the maintenance of certain taxes imposed provisionally after the war, and which have not yet been removed, owing to the constant increase in public expenses."

The course of production in steel, pig-iron, and other iron since 1874 is shown in the following tables:

PRODUCTION AND AVERAGE MARKET PRICE OF PIG-IRON IN FRANCE, 1874-83.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Tons of pig-iron.		Average market price.	
	Raw pig-iron.	Pig-iron "moulded in first fusion."	Pig-iron.	Muck-bar-iron.
1874.....	1,328,000	88,000	\$22 80	\$39 60
1875.....	1,373,000	75,000	20 60	39 00
1876.....	1,337,000	98,000	18 60	35 80
1877.....	1,402,000	105,000	17 80	34 60
1878.....	1,423,000	92,000	16 60	32 64
1879.....	1,326,000	74,000	15 60	35 40
1880.....	1,631,000	94,000	17 00	37 60
1881.....	1,798,000	88,000	17 00	35 80
1882.....	1,939,000	100,000	17 00	37 00
1883.....	1,987,000	82,000	15 40	30 80

PRODUCTION AND AVERAGE MARKET PRICE OF MERCHANT IRON IN FRANCE, 1874-83.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Tons produced.				Average market price.	
	Rails.	Sheet-iron.	Other.	Total.	Sheet-iron.	Other.
1874.....	161,000	116,000	581,000	858,000	\$76 00	\$56 40
1875.....	119,000	124,000	627,000	870,000	69 40	51 20
1876.....	82,000	128,000	627,000	837,000	65 40	46 00
1877.....	60,000	126,000	695,000	884,000	61 80	43 20
1878.....	52,000	132,000	659,000	843,000	58 60	40 60
1879.....	40,000	137,000	680,000	857,000	60 80	40 80
1880.....	42,000	155,000	769,000	966,000	65 40	42 80
1881.....	28,000	168,000	830,000	1,026,000	67 00	41 60
1882.....	27,000	168,000	883,000	1,073,000	65 40	42 80
1883.....	19,000	151,000	809,000	979,000	63 80	40 40

PRODUCTION AND AVERAGE MARKET PRICE OF STEEL IN FRANCE, 1874-83.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Average market price per ton of Bessemer and Martin steel.	Tons produced.			
		Bessemer and Martin steel.		Other steel.	Total.
		Rails.	Other.		
1874.....	\$58 20	154,000	28,000	27,000	209,000
1875.....	51 80	178,000	45,000	33,000	256,000
1876.....	48 00	181,000	30,000	31,000	242,000
1877.....	47 20	184,000	56,000	29,000	269,000
1878.....	43 40	231,000	52,000	80,000	313,000
1879.....	43 20	254,000	53,000	26,000	333,000
1880.....	43 60	280,000	80,000	29,000	389,000
1881.....	41 80	303,000	91,000	28,000	422,000
1882.....	39 80	326,000	97,000	25,000	458,000
1883.....	37 40	391,000	108,000	22,000	522,000

The following table shows the production of coal, iron, and steel in France for each year since 1829. There are slight discrepancies between the amounts given for the years since 1873 and those given on the preceding page, but these are not sufficient to invalidate its general usefulness. It may be here stated, once for all, that errors or discrepancies found in tables taken from published documents should not be charged to this Bureau.

YEARLY PRODUCTION OF COAL, IRON, AND STEEL IN FRANCE, 1829-83.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Tons of coal consumed.	Tons produced.			
		Coal.	Pig-iron.	Merchant iron.	Steel.
1829	2,289,000	1,741,000	217,000	153,000	.....
1830	2,493,000	1,962,000	266,000	148,000	.....
1831	2,501,000	1,760,000	224,000	141,000	5,000
1832	2,520,000	1,962,000	225,000	143,000	5,000
1833	2,736,000	2,057,000	236,000	152,000	6,000
1834	3,214,000	2,489,000	260,000	177,000	6,000
1835	3,288,000	2,506,000	294,000	200,000	6,000
1836	3,814,000	2,841,000	308,000	210,000	5,000
1837	4,091,000	2,980,000	331,000	224,000	6,000
1838	4,304,000	3,113,000	347,000	234,000	7,000
1839	4,180,000	2,994,000	350,000	231,000	8,000
1840	4,256,000	3,005,000	347,000	237,000	8,000
1841	4,979,000	3,410,000	377,000	263,000	8,000
1842	5,203,000	3,592,000	309,000	264,000	8,000
1843	5,293,000	3,692,000	422,000	309,000	10,000
1844	5,486,000	3,785,000	457,000	315,000	16,000
1845	6,343,000	4,202,000	458,000	342,000	12,000
1846	6,608,000	4,469,000	522,000	360,000	13,000
1847	7,648,000	5,153,000	591,000	376,000	12,000
1848	6,095,000	4,000,000	472,000	276,000	7,000
1849	6,405,000	4,049,000	414,000	243,000	9,000
1850	7,225,000	4,432,000	405,000	240,000	11,000
1851	7,376,000	4,485,000	445,000	254,000	14,000
1852	7,958,000	4,903,000	522,000	301,000	18,000
1853	9,422,000	5,827,000	660,000	450,000	22,000
1854	10,856,000	6,827,000	771,000	511,000	24,000
1855	12,293,000	7,453,000	849,000	557,000	19,000
1856	12,896,000	7,925,000	923,000	566,000	25,000
1857	13,149,000	7,901,000	992,000	559,000	23,000
1858	12,893,000	7,552,000	871,000	530,000	23,000
1859	13,262,000	7,681,000	864,000	533,000	23,000
1860	14,270,000	8,009,000	898,000	532,000	30,000
1861	15,402,000	9,095,000	966,000	631,000	36,000
1862	16,274,000	10,017,000	1,090,000	734,000	47,000
1863	16,513,000	10,707,000	1,156,000	770,000	37,000
1864	17,491,000	11,201,000	1,212,000	792,000	41,000
1865	18,522,000	11,652,000	1,203,000	769,000	40,000
1866	20,057,000	12,284,000	1,260,000	819,000	38,000
1867	20,160,000	12,533,000	1,229,000	776,000	46,000
1868	20,911,000	13,030,000	1,285,000	813,000	80,000
1869	21,432,000	13,509,000	1,380,000	903,000	110,000
1870	18,830,000	13,179,000	1,178,000	830,000	94,000
1871	18,860,000	13,240,000	859,000	667,000	86,000
1872	23,233,000	10,100,000	1,217,000	883,000	141,000
1873	24,702,000	17,479,000	1,361,000	760,000	150,000
1874	23,417,000	16,907,000	1,415,000	742,000	208,000
1875	24,657,000	16,956,000	1,448,000	745,000	256,000
1876	24,472,000	17,011,000	1,435,000	837,000	241,000
1877	24,144,000	16,804,000	1,506,000	894,000	269,000
1878	24,555,000	16,960,000	1,521,000	843,000	313,000
1879	25,332,000	17,110,000	1,400,000	837,000	353,000
1880	28,840,000	18,804,000	1,725,000	965,000	369,000
1881	29,444,000	19,765,000	1,866,000	1,026,000	422,000
1882	31,025,000	20,604,000	2,069,000	1,073,000	458,000
1883	32,439,000	21,334,000	2,069,000	979,000	522,000

MILES OF RAILROAD IN OPERATION AND MILES BUILT EACH YEAR IN FRANCE,
1840-84.^a

Year.	Miles in operation at end of year.	Increase.	Year.	Miles in operation at end of year.	Increase.	Year.	Miles in operation at end of year.	Increase.
1840.....	271	.....	1855.....	2,450	554	1870.....	10,904	414
1841.....	357	86	1856.....	3,875	416	1871.....	10,766	b138
1842.....	374	17	1857.....	4,063	788	1872.....	11,120	354
1843.....	517	143	1858.....	5,433	770	1873.....	11,576	456
1844.....	519	2	1859.....	5,672	139	1874.....	11,919	343
1845.....	551	32	1860.....	5,900	228	1875.....	12,330	420
1846.....	825	274	1861.....	6,320	420	1876.....	12,687	348
1847.....	1,143	318	1862.....	6,934	614	1877.....	13,112	425
1848.....	1,387	244	1863.....	7,524	590	1878.....	13,839	727
1849.....	1,782	395	1864.....	8,155	631	1879.....	14,228	389
1850.....	1,870	87	1865.....	8,477	322	1880.....	14,839	611
1851.....	2,220	341	1866.....	9,074	597	1881.....	15,787	948
1852.....	2,417	197	1867.....	9,809	735	1882.....	16,455	668
1853.....	2,538	121	1868.....	10,200	391	1883.....	16,945	510
1854.....	2,905	367	1869.....	10,590	390	1884.....	18,417	c1,452

^a In a few instances an irreconcilable discrepancy, not large, exists between the columns of "Miles in operation", etc., and "Increase".

^b Decrease caused by the cession of Alsace and Lorraine.

^c Certain conventions negotiated between France and the various railroad companies, which went into effect in 1883, provided for a considerable extension of the railroad system, the Government of France guaranteeing a dividend on the additional stock issued.

DEPOSITORS AND DEPOSITS IN SAVINGS BANKS IN FRANCE, 1885-83.

Year.	Number of depositors at end of year.	Amount.		Year.	Number of depositors at end of year.	Amount.	
		Deposited during year.	Due depositors at end of year.			Deposited during year.	Due depositors at end of year.
1885.....	258,000	\$7,720,000	\$12,352,000	1860.....	1,215,000	\$31,073,000	\$72,568,000
1886.....	276,000	11,001,000	19,528,000	1861.....	1,302,000	31,632,000	77,586,000
1887.....	377,000	10,808,000	20,458,000	1862.....	1,379,000	31,632,000	81,832,000
1888.....	267,000	14,282,000	28,178,000	1863.....	1,471,000	33,775,000	80,271,000
1889.....	310,000	14,861,000	33,003,000	1864.....	1,554,000	33,775,000	80,160,000
1890.....	351,000	17,949,000	37,056,000	1865.....	1,644,000	33,898,000	95,149,000
1891.....	428,000	23,739,000	47,478,000	1866.....	1,749,000	34,021,000	101,904,000
1892.....	500,000	27,020,000	57,707,000	1867.....	1,845,000	39,951,000	110,010,000
1893.....	572,000	28,564,000	67,530,000	1868.....	1,968,000	45,355,000	121,976,000
1894.....	687,000	30,168,000	75,650,000	1869.....	2,050,000	51,917,000	132,012,000
1895.....	684,000	27,983,000	75,849,000	1870.....	2,079,000	53,968,000	121,976,000
1896.....	728,000	27,599,000	73,532,000	1871.....	2,021,000	16,019,000	103,834,000
1897.....	712,000	24,318,000	65,934,000	1872.....	2,020,000	30,103,000	99,395,000
1898.....	586,000	19,107,000	14,282,000	1873.....	2,079,000	34,351,000	103,255,000
1899.....	584,000	18,914,000	26,827,000	1874.....	2,170,000	37,035,000	110,589,000
1900.....	611,000	18,721,000	29,994,000	1875.....	2,365,000	51,917,000	127,380,000
1901.....	754,000	19,143,000	47,864,000	1876.....	2,625,000	53,968,000	148,417,000
1902.....	865,000	27,792,000	55,970,000	1877.....	2,888,000	60,203,000	166,559,000
1903.....	865,000	21,610,000	52,303,000	1878.....	3,173,000	79,516,000	196,088,000
1904.....	890,000	24,160,000	52,303,000	1879.....	3,507,000	80,850,000	222,915,000
1905.....	939,000	24,318,000	53,448,000	1880.....	3,841,000	90,324,000	247,040,000
1906.....	970,000	22,967,000	53,654,000	1881.....	4,064,000	80,078,000	271,358,000
1907.....	1,041,000	25,090,000	59,830,000	1882.....	4,321,000	148,502,000	333,785,000
1908.....	1,125,000	28,178,000	65,234,000	1883.....			

BELGIUM.

1837.—The periods of crises correspond quite nearly to those in England. Situated as this country is in its relations to Germany and France, when either of these latter countries is affected Belgium is quite sure to feel its influence. The crisis of 1837 was due largely to financial causes, and it was quite severe. It lasted during 1837 and the most of 1838, the industries of the state being incidentally involved. It has been impossible to obtain detailed facts of interest and value regarding the depression of this year.

1848.—The crisis of 1848 was coincident with revolutionary outbreaks throughout a large part of Europe. Its causes were chiefly financial, and, like the crisis of 1837, it was distinguished by a violent contraction of business and a cessation of speculative enterprises, due to the stringency of the money market. The results of the crisis extended into the next year, really causing a depression, which was severe, and enormous losses occurred.

1855-56.—The Crimean war—in which England, France, Turkey, and Russia were actively engaged, while Prussia, Austria, and Italy stood prepared for an emergency—affected Belgium. A crisis occurred in 1855, which was sharp and severe, and which operated more or less unfavorably upon trade and industry throughout 1855-56 and the greater part of 1857. It is noticeable that but little is heard of over-production as a factor in the crises prior to this date, or even in that of the date under consideration. England, Belgium, and France were the chief producing nations, and other European countries played but a subordinate part. Prussia, prior to 1859, was industrially an unimportant state, as compared with the three just named; so Belgium, in the crisis of 1855-56, and through 1857, suffered in a way quite unknown to her German neighbors.

1864.—The crisis of this year, commonly known as the "cotton crisis," affected the cotton and linen industries, causing a stagnation in the former, owing to the restricted supply of raw material during the latter part of the American war and an abnormal development of the linen business, since linen goods absorbed for nearly two years the ordinary market for cottons. Linen manufacturing, therefore, was immensely overdone, and this industry has in later years felt severely the results of the unhealthy stimulus of the cotton famine.

1873.—Belgium suffered from the general European disturbances, and the crisis of 1873, resulting in a depression which lasted until 1878 or 1879, characterized by all the circumstances and conditions affecting other countries, although there were short intervening periods of prosperity in some branches of trade. In the opinion of M. Georges de Laveleye, editor of the *Moniteur des Intérêts Matériels*, of Brussels, the

chief characteristic of this long-depressed period was the accumulation of an enormous amount of money, which remained unemployed, whereby the value of the public funds was raised and the revenues of capital lowered. He accounts for the fact that this enormous accumulation of capital, or rather money, remained inert and unattracted by new enterprises, by showing that a definitive stage of industry never before reached had then come about—viz., that the industrial activity of the last half century had resulted in fully equipping the civilized countries of the world with economic tools, and that the work of the future must necessarily be repair rather than construction. With this unique and predominant feature, no basis therefore existed for exact comparison of this with the crises of 1837, 1848, and 1855-56, in each of which periods there had been over-production, an abuse of credit, and a general disproportion between engagements undertaken and resources available for prosecuting them. In former crises credit had vanished quickly, and there had been a series of commercial and financial failures, violent contraction of business, and curtailment of new enterprises and of those already in progress. Preceding crises had not been of long duration, yet quite long enough to give the overstocked market time to work off surplus stocks of paper and merchandise, and to establish an equilibrium between engagements in progress and circulating capital and credit, resulting in industrial and commercial progress. New enterprises presented themselves which found favor with the public, and the play of credit was renewed after periods of forced calm. The progress of these preceding crises was always the same, the coming storms ushered in by huge undertakings of industrial speculation, and made evident by the scarcity of credit and the disappearance of disposable capital, and these conditions continued through the period of quiet, while old undertakings were liquidated and stocks of cash reconstituted. The crisis beginning in Belgium, as in other countries, in 1873, resulting in a depression which lasted until 1878 or 1879, presented new phases, capital steadily accumulating and a marked disproportion existing between new enterprises and available resources, a feature directly the opposite of any which appeared in preceding crises.

The crises of the bourses in 1873, breaking up foreign loans generally, seized all who possessed movable capital, that is, the capitalists of England, France, Holland, and Belgium, and in other countries such banks and financial institutions as existed, not from credit, but by giving credit. Unconsciously all these lenders of capital and credit sought for the return of their loans, called them in, and blamed themselves with having given too much confidence to foreigners. It is said that certain bankers, essentially wise and versed in monetary affairs, hold it advisable periodically to "see again their money," and to satisfy this desire they do not hesitate to interrupt an enterprise full of promise, give up lucrative relations, and reap before the harvest is fully ripe. It is generally admitted that those who have acted on this policy have never had cause to re-

gret their action, for although at times they may have missed some profit which they might have made, they have more often escaped traps which would have led to ruin. It is also true in the period from 1873 to 1878 that what some did from wisdom or prudent custom, the great majority did from fear, and the whole of lending Europe wished "to see again its money," or, if miscalculations had been made, what remained of its money. Those who held foreign paper realized on it without regard to loss; those who made profit from their funds actively employed in foreign industries or enterprises retired therefrom, and those who had foreign accounts relinquished their operations. Every foreign account of credit was reclaimed and balanced. From these conditions followed different conditions of exchange and the unimportance of commerce in international paper. The result was that the countries and houses which worked with the aid of the credit and the capital of others saw their resources curtailed. Those who could stand of themselves under the storm found themselves under the obligation of discontinuing works already commenced, to suspend hoped-for progress, to reduce production, to balance their affairs, and, in a word, to renounce all that was possible beforehand, but which became impossible without the funds furnished by others. This was done under force and compulsion, but the borrowers did not attach great importance to the conditions referred to. "The trouble will pass," the borrowers thought, and the very fact that they were able to stand, to remain in the field, they expected would cause in a short time a return of the capital they so much needed and desired. This hope, however, was not justified, for the lending countries, England, France, Holland, and other countries accustomed to speculate with their surplus capital, were determined to bring their money into their coffers again, notwithstanding the deception and devices necessary to accomplish this result. Nor were the lending forces content with bringing their money back. They were deceived by the enchantment, for the sight of their treasures fascinated them and caused them to forget that the function of money was to circulate and to produce again in circulation. Instead of making their capital productive, they preferred to keep it in their own hands, at the cost of a vast sacrifice of interest; so it went either to accumulate the reserve and deposits in the banks, or was offered at a low price for immediate and indisputable sureties. The interest on deposits became one-fourth of 1 per cent., and first-class commercial paper was discounted at three-fourths of 1 per cent. and 1 per cent. Everything which was sure, maturing early, and always capable of being realized upon, was abundantly aided with resources resulting from the great amount of capital which had been recalled from foreign countries. The result of these conditions was, on the part of the borrowing countries, a stoppage of works, of progress, and of business, and on the part of the lending countries a plethora of disposable capital, with hardly any avenue at home for its remunerative employment. This excess of capital in the leading countries operated

in lowering the cost of production and prices as well. The foreign loans called in seriously crippled the powers of consumption in some of the best markets of the exporting nations. Belgium, being, like England, a great exporting nation, in this state of affairs could not help suffering, and thus the financial difficulties resulted in a long-continued depression, involving the industries of the state, and it was not until 1879 that there came much relief, when the revival of her iron industries enabled her to break partially, if not wholly, the depression.

1889.—The partial revival in 1879, just referred to, was of short duration, but it had the effect of bringing capital of a fixed nature into activity. Belgium has been an industrial country for many years, and the products of her industry have long since passed the limit of domestic consumption. Like England, her economic prosperity has depended largely upon her export trade, and the very same causes which have operated to restrict the market and depress the trade of the former, in particular the hostile tariffs of neighboring countries, have also affected the latter. These conditions are the result of features common to all manufacturing countries, and to avoid repetition will be discussed in an appropriate chapter comprehending such features for all the countries under consideration.

The following tables exhibit the course of trade in Belgium for some of the leading industries :

PRODUCTION, VALUE, ETC., OF COAL IN BELGIUM, 1831-83.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Employees.		Quantity produced.		Value of product at mine.	Market price per ton.
	Average wages yearly.	Number.	Tons.	Tons per employee.		
1831	\$72	29,000	2,305,016	79	\$4,012,400	\$1.74
1832	66	28,000	2,220,838	81	3,866,000	1.71
1833	75	28,300	2,531,405	89	4,357,000	1.71
1834	81	28,568	2,436,875	85	4,162,400	1.72
1835	90	28,589	2,638,731	92	5,002,200	1.85
1836	102	28,937	3,074,481	106	7,067,400	2.49
1837	114	33,222	3,228,807	97	6,458,900	2.62
1838	120	37,108	3,290,271	88	8,568,000	2.63
1839	115	37,047	3,479,161	94	9,024,800	2.59
1840	110	39,150	3,929,963	100	9,268,000	2.36
1841	105	37,629	4,027,787	107	8,502,200	2.11
1842	103	39,902	4,141,483	104	7,607,600	1.84
1843	98	37,503	3,982,274	106	7,235,400	1.82
1844	99	38,490	4,445,240	115	7,968,800	1.79
1845	105	41,359	4,919,156	119	9,429,800	1.92
1846	107	45,488	5,037,402	111	9,484,000	1.87
1847	105	48,847	5,664,450	116	10,461,000	1.85
1848	92	44,777	4,962,694	109	8,233,800	1.69
1849	90	46,181	5,251,843	114	6,068,800	1.50
1850	93	47,940	5,320,588	121	9,291,200	1.60
1851	98	49,500	6,232,517	126	9,918,400	1.56
1852	101	51,873	6,798,254	131	10,614,000	1.56
1853	114	54,204	7,172,687	132	12,487,000	1.73
1854	123	62,194	7,947,742	128	17,171,600	2.17
1855	149	70,980	8,409,330	118	20,809,400	2.46

PRODUCTION, VALUE, ETC., OF COAL IN BELGIUM, 1831-83—Concluded.

Year.	Employés.		Quantity produced.		Value of product at mine.	Market price per ton.
	Average wages yearly.	Number.	Tons.	Tons per employé.		
1856.....	\$143	73,585	8,212,419	112	\$21,091,800	\$2 57
1857.....	141	72,577	8,383,902	116	20,094,200	2 89
1858.....	143	73,850	8,925,714	121	20,675,400	2 32
1859.....	146	77,293	9,180,702	119	20,801,200	2 27
1860.....	145	78,232	9,610,895	123	21,425,400	2 22
1861.....	145	81,675	10,057,163	123	22,003,000	2 19
1862.....	138	80,302	9,935,645	124	20,897,000	2 10
1863.....	140	79,187	10,345,330	131	20,957,400	2 03
1864.....	143	79,779	11,158,336	140	22,110,800	1 98
1865.....	157	83,868	11,840,703	144	24,779,200	2 09
1866.....	173	86,721	12,774,662	147	30,206,400	2 36
1867.....	178	98,339	12,755,822	137	31,650,000	2 48
1868.....	161	89,882	12,298,589	138	26,774,200	2 18
1869.....	166	89,928	12,942,894	144	27,222,200	2 10
1870.....	176	91,993	13,697,118	149	29,727,000	2 17
1871.....	173	94,286	13,783,176	146	30,760,000	2 34
1872.....	209	98,863	15,658,948	158	41,711,800	2 68
1873.....	271	107,902	15,778,401	146	67,537,400	4 88
1874.....	237	109,631	14,069,029	134	48,182,000	3 28
1875.....	233	110,720	15,011,831	136	45,968,000	3 66
1876.....	206	108,543	14,329,578	132	38,523,800	2 71
1877.....	167	101,343	13,938,623	138	30,591,400	2 20
1878.....	168	99,032	14,899,175	150	29,564,200	1 98
1879.....	162	97,714	15,447,292	156	29,990,000	1 88
1880.....	184	102,930	16,866,698	161	33,636,000	2 01
1881.....	186	101,351	16,873,951	166	32,740,800	1 94
1882.....	185	103,701	17,590,989	170	35,179,200	2 00
1883.....	201	106,252	18,177,754	171	36,965,600	2 00

PRODUCTION AND VALUE OF IRON AND STEEL IN BELGIUM, 1840-1883.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Year.	Iron ore.		Pig-iron.		Merchant iron.			Steel.			
	Tons.	Value.	Blast fur-naces.	Tons.	Value.	Estab-lish-ments.	Tons.	Value.	Estab-lish-ments.	Tons.	Value.
1840	191,812	\$283,883									
1845	394,544	704,519	56	134,563	\$2,812,065	249	75,081	\$4,110,588	1	33	\$4,966
1850	299,272	465,064	41	144,452	2,232,789	263	89,924	3,618,540	2	.....	.....
1855	852,134	1,781,297	71	294,270	6,598,677	263	171,013	8,394,627	2	47	12,159
1860	809,176	1,495,486	51	319,934	5,078,849	296	271,890	10,573,407	4	3,172	163,857
1865	1,018,231	1,897,096	56	470,767	7,145,705	299	428,225	15,459,381	4	3,061	234,652
1867	603,829										
1868	519,740										
1869	628,046										
1870	654,332	1,120,452	48	565,234	7,902,955	294	589,560	20,803,611	2	9,563	468,480
1871	697,272										
1872	749,781										
1873	503,565										
1874	527,050										
1875	365,044	660,662	42	540,473	7,809,718	286	540,513	20,402,072	3	47,200	2,725,923
1876	269,206										
1880	253,499	361,875	36	608,684	7,194,340	281	575,435	19,145,850	2	99,096	3,411,803
1882	206,867	307,111	33	726,946	8,451,982					4,328,273	8,376,973
1883	215,670	282,150	36	783,433	8,599,386					4,331,106	7,706,143

GERMANY.

1837.—Germany, meaning by Germany all that now constitutes the German Empire, could not at this time be called a great manufacturing nation. Prussia was making considerable progress, as were some of the states of Germany, but it was not until 1859 that she could feel that she was taking rank among the great manufacturing nations. Prussia and the German states, therefore, in 1837 simply suffered from the financial shock of that year which affected other countries. Extended credits, speculation in some directions, and the general financial disturbances of the Continent had their influence on German financial and commercial affairs.

1847-48.—The crisis of this period belonged to that of revolutionary outbreaks, and was entirely financial and commercial in its features, the industries of the country being but slightly involved.

1855-56.—Prussia and the other German states were involved in the financial panics of this period although not participants in the Crimean war. Germany was not of sufficient importance as a manufacturing state to be in a position to take such benefits as a neutral power as might have been the case had she been generally engaged in production, and therefore did not have the experience usual under such circumstances of passing through a period of great industrial activity to be followed by one of stagnation. The Austro-Italian war, in which Prussia participated, caused local disturbances in Germany.

In 1864 the cotton industry felt the effects due to the scarcity of raw cotton, caused by the American war, as did other nations of Europe engaged in manufacturing cotton goods. Germany also suffered a brief depression resulting from the Prusso-Austrian war, and again in 1870 and 1871 a crisis was caused by the great Franco-German contest; but while suffering from these varied brief disturbances since 1857, no long-continued general industrial depression prevailed.

1873-79.—Germany became thoroughly involved in the crisis of 1873, and the depression of her industries resulted from such crisis; but there were other causes than those belonging to other countries which aggravated the depression in Germany. Since 1870 Germany has entered the lists as an industrial competitor on foreign ground, and she has consequently sought a wider market than her own territory. She was therefore in a condition in 1873 to be greatly injured by the disturbances in monetary affairs which took place everywhere. The cost of production of the principal articles of staple goods of the market reached so high a point that the consumption was crippled.

In 1871 German unity, the poetic dream of centuries, became an accomplished fact. The people felt proud of the Empire, and also felt

that they must do something worthy of their high position in the world. This purely psychological stimulus was nurtured by the possession of ample means to carry out grand ideas. Germany had become one of the strongest political communities of the world, and her people determined that she should also be one of the first-rate industrial powers. Five milliards of francs in gold had been received from France as an indemnity for losses by the war, and the German Government took the opportunity to pay off its obligations; money became plenty, even superfluously abundant; the field of industry was yielding enormous profits, and the German people argued that their great opportunity to become a nation permanently wealthy had arrived. The whole country swallowed the deceptive bait and entered vigorously into great industrial, financial, and public undertakings. Old establishments were deceived by high prices and lured by lenders of capital into enlarging the capacity of their works. One Silesian firm of iron manufacturers informed the agent of the Bureau that early in 1872 a well-known Breslau bank sent an agent begging it to negotiate a loan at 1 per cent. to enlarge its establishment. The offer was accepted, and ever since the firm has absorbed its profits in paying off the debt. Manufacturers, instead of laying by their enormous profits, applied them to enlarging their facilities for production. Almost everybody of any means, or if they had enterprise and could secure credit, were engaged in some sort of speculation, and of course thrift and economy were laid aside. It is impossible to estimate the enormous sums lost through joint-stock enterprises. The joint-stock companies, however, soon became odious in public estimation, so that designating a man as a director of a joint-stock company was considered so great an insult that it excited the strongest antagonism. In Prussia alone, in 1872, 493 new joint-stock companies were founded, with an aggregate capital of \$362,082,381; while during the first six months of 1873, 194 were established, with an aggregate capital of \$118,963,586. In the latter part of 1873 the crash came. Great fortunes melted away, industry was stagnated, and Germany was in a far worse condition industrially than ever before. Purely artificial and weak institutions went to the wall, while strong ones gathered up the fragments that remained. The result was that German industry was stagnated completely until 1879, when a slight revival took place, but only for a short time. She has been laboring under the heavy burden of excessive means of production, created under the influences of what the Germans now call "the unfortunate war indemnity."

It is interesting to note, however, the fact that in the great excitement of 1872-73 the increase of railroad mileage in Germany was not beyond the normal rate. The great sums of money then in the country were mostly invested in manufacturing and purely speculative enterprises instead of in the development of railroads.

1832-86.—After the brief and slight reaction of 1879, which lasted two or three years, Germany found that she had not recovered from the effects of the disasters of 1873; yet many features have attended this period which did not attend that following 1873, for the present period is one purely of industrial depression, primarily; while the preceding period had the usual inception, resulting from financial and commercial causes. The general features, however, which have accompanied the present period of industrial depression in Germany belong to other countries in almost the same degree, and need not be recited in this chapter; but the statistics of savings banks, of railroad building, and of some of the prominent industries of Germany are properly stated at this point:

SAVINGS BANKS IN PRUSSIA, 1830-81.

Year.	Number.		Deposits at end of year.
	Savings banks.	Depositors.	
1839	85		\$4,338,826
1840	94		4,872,689
1841	103		5,490,224
1842	116		6,367,957
1843	129		7,190,879
1844	143		8,093,462
1845	157		8,946,586
1846	178		10,010,407
1847	197		11,224,533
1848	213		10,242,110
1849	220	261,714	11,822,976
1850	234	278,147	12,937,575
1851	243	309,029	14,703,430
1852	246	339,112	16,486,551
1853	263	375,180	18,834,251
1854	285	397,913	20,832,211
1855	323	423,542	23,051,931
1856	365	463,431	25,705,000
1857	405	515,826	29,293,744
1858	453	557,697	31,911,489
1859	462	564,986	32,330,706
1860	471	613,782	36,027,231
1861	478	676,101	40,661,603
1862	483	739,353	47,306,084
1863	494	806,528	53,448,836
1864	504	864,181	58,479,991
1865	517	919,513	63,749,269
1866	525	900,468	64,524,297
1867	542	927,981	68,635,580
1868	548	983,857	74,290,588
1869	917	1,358,641	112,231,849
1870	932	1,391,970	117,964,820
1871	945	1,551,539	137,723,884
1872	950	1,706,111	163,976,391
1873	963	1,907,954	199,004,702
1874	983	2,061,199	234,962,448
1875	1005	2,209,101	266,744,228
1876	1020	2,371,632	290,674,256
1877	1080	2,512,019	309,418,686
1878	1157	2,661,382	319,367,515
1879	1174	2,760,302	351,481,244
1880	1190	2,936,055	369,102,952
1881	1208	3,091,584	406,375,157

SAVINGS BANKS IN SAXONY, 1845-80.

Year.	Amount.		Year.	Amount.	
	New deposits.	Deposits with- drawn.		New deposits.	Deposits with- drawn.
1845	\$583,449	\$425,926	1871	\$9,845,782	\$7,472,617
1850	1,350,911	801,119	1872	13,940,009	8,927,708
1855	2,481,256	2,184,050	1873	17,161,613	10,250,330
1860	4,156,572	3,314,516	1874	20,015,200	12,275,321
1865	6,416,099	5,514,944	1875	19,167,602	14,211,962
1866	6,074,039	6,047,456	1876	19,146,827	16,460,326
1867	6,582,624	6,568,224	1877	17,778,446	17,440,614
1868	7,903,988	6,289,195	1878	18,435,558	17,725,045
1869	8,413,581	6,992,994	1879	19,875,747	18,090,314
1870	8,166,742	7,026,275	1880	20,875,443	18,746,383

CLASSES OF DEPOSITORS IN SAVINGS BANKS IN SAXONY, 1845-81.

Having in bank—	1845.		1850.		1855.		1860.		1865.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under \$15	24,679	42.77	39,781	41.97	74,953	41.71	115,802	41.51	149,589	37.94
\$15 to \$37	15,426	26.73	24,244	25.58	42,298	21.54	63,514	22.77	85,421	21.67
\$37 to \$75	10,309	17.87	18,043	19.04	32,133	17.88	45,671	16.37	65,466	16.61
\$75 to \$150	5,057	8.76	9,188	9.79	21,265	11.83	36,235	12.99	57,561	14.60
Over \$150	2,236	3.87	3,531	3.72	9,050	5.04	17,722	6.36	36,197	9.18
Total	57,707	100.00	94,787	100.00	179,705	100.00	278,944	100.00	394,234	100.00

Having in bank—	1870.		1875.		1880.		1881.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under \$15	181,279	38.14	232,501	31.68	298,469	32.81	323,178	33.72
\$15 to \$37	99,320	20.90	145,356	19.80	161,205	17.72	170,095	17.74
\$37 to \$75	74,487	15.67	110,909	15.94	135,857	14.93	139,137	14.51
\$75 to \$150	67,087	14.12	112,776	15.37	134,729	14.81	140,795	14.69
Over \$150	53,099	11.17	126,319	17.21	179,527	19.73	185,344	19.34
Total	475,272	100.00	733,951	100.00	909,787	100.00	958,549	100.00

It is curious to see the remarkable increase of the number of depositors since 1870, and to note that this increase has been proportionally far greater in that class which have deposits of more than \$150. This illustrates one of the unique features of the present depression, viz., plenty of money in the banks, with low prices prevailing at the same time.

While the percentage of the whole of the lowest class of depositors has decreased from 42.77 in 1845 to 33.72 in 1881, that of the highest class has increased from 3.87 in 1845 to 19.34 in 1881.

There is in Germany at present a growing agitation in favor of the institution of postal savings banks on the same basis as in England and Belgium. The majority of savings banks in Germany are municipal

institutions, managed by directors appointed by the town councils. A moderate per cent. is paid to depositors and the remaining profits above the expenses of management are applied to local improvements—the institution of water and gas works, street paving, etc. In this way many improvements have been made which might never have been accomplished if the money had come directly from the tax-payers. The opponents of the postal savings bank scheme make strong use of this argument.

The steady progress of production and of railroad-building in Germany is well illustrated by the four tables following:

PRODUCTION OF PIG-IRON IN GERMANY, 1862-82.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Tons.	Value.	Years.	Tons.	Value.
1863.....	812,600	\$17,009,622	1873.....	2,240,600	\$59,170,370
1864.....	904,700	18,210,570	1874.....	1,906,300	38,347,038
1865.....	988,200	20,018,894	1875.....	2,000,400	34,789,650
1866.....	1,046,900	20,509,650	1876.....	1,846,400	27,332,158
1867.....	1,113,600	20,142,892	1877.....	1,932,700	29,563,414
1868.....	1,261,400	22,111,628	1878.....	2,147,600	27,270,516
1869.....	1,413,000	24,927,882	1879.....	2,220,000	29,739,776
1870.....	1,391,100	25,314,870	1880.....	2,730,000	38,886,829
1871.....	1,530,700	30,215,766	1881.....	2,914,000	39,020,050
1872.....	1,988,400	52,917,396	1882.....	3,380,800	46,578,504

PRODUCTION OF COAL IN GERMANY, 1848-82.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Tons.	Value.	Years.	Tons.	Value.
1848.....	5,800,985	\$7,017,716	1871.....	37,855,100	\$58,206,232
1849.....	10,770,756	13,883,746	1872.....	42,324,400	77,627,032
1850.....	14,867,121	22,373,367	1873.....	46,145,200	104,308,736
1851.....	20,660,677	23,135,498	1874.....	46,647,100	101,486,770
1852.....	22,366,200	23,955,414	1875.....	47,803,100	79,580,000
1853.....	25,612,900	28,110,180	1876.....	49,550,400	71,904,560
1854.....	28,552,800	33,394,494	1877.....	48,229,900	60,188,534
1855.....	28,172,900	34,766,564	1878.....	50,519,900	57,685,250
1856.....	30,802,900	37,476,670	1879.....	53,470,700	57,341,340
1857.....	32,870,200	39,459,086	1880.....	59,118,100	67,205,250
1858.....	34,444,000	42,087,206	1881.....	61,040,500	69,109,012
1859.....	34,003,000	44,170,420	1882.....	65,378,200	72,335,570

MILES OF RAILROAD (STATE AND PRIVATE) IN OPERATION IN THE GERMAN EMPIRE AT THE CLOSE OF EACH YEAR, 1835-81.

Years.	Miles.	Years.	Miles.	Years.	Miles.
1835.....	3.72	1851.....	4,012.02	1867.....	\$10,203.09
1836.....	3.72	1852.....	4,329.33	1868.....	10,617.06
1837.....	12.46	1853.....	4,656.94	1869.....	11,209.41
1838.....	87.11	1854.....	4,943.07	1870.....	12,136.50
1839.....	162.75	1855.....	5,138.06	1871.....	13,125.27
1840.....	340.32	1856.....	5,640.01	1872.....	13,963.82
1841.....	512.31	1857.....	5,893.59	1873.....	14,739.10
1842.....	664.45	1858.....	6,312.53	1874.....	15,807.02
1843.....	904.82	1859.....	6,896.75	1875.....	17,317.28
1844.....	1,184.73	1860.....	7,212.27	1876.....	18,034.56
1845.....	1,428.72	1861.....	7,471.49	1877.....	18,778.62
1846.....	2,135.15	1862.....	7,232.49	1878.....	19,426.06
1847.....	2,771.77	1863.....	8,238.18	1879.....	20,518.40
1848.....	3,196.53	1864.....	8,599.40	1880.....	20,900.88
1849.....	3,479.10	1865.....	9,105.94	1881.....	21,239.71
1850.....	3,747.46	1866.....	9,674.85		

MILES OF RAILROAD (STATE AND PRIVATE) IN OPERATION IN THE KINGDOM OF PRUSSIA AT THE CLOSE OF EACH YEAR, 1838-81.

Years.	Miles.	Years.	Miles.	Years.	Miles.
1838	21.51	1853	2,699.17	1868	5,969.36
1839	52.04	1854	2,829.08	1869	6,153.37
1840	105.95	1855	2,948.65	1870	6,770.02
1841	222.27	1856	3,373.79	1871	7,440.37
1842	341.37	1857	3,547.64	1872	8,019.45
1843	524.08	1858	3,672.57	1873	8,495.92
1844	658.68	1859	4,004.70	1874	9,138.55
1845	819.70	1860	4,198.33	1875	10,024.47
1846	1,292.76	1861	4,311.91	1876	10,403.91
1847	1,707.72	1862	4,529.22	1877	10,771.57
1848	1,949.34	1863	4,741.63	1878	11,275.32
1849	2,025.04	1864	4,844.24	1879	11,967.17
1850	2,205.65	1865	5,063.00	1880	12,194.84
1851	2,343.53	1866	5,428.89	1881	12,423.87
1852	2,555.20	1867	5,740.33		

The German bimetallists hold pronounced views relative to the cause of the low prices which have in general prevailed in Germany, as elsewhere, since 1873. The fact that low prices are not confined to the province of industry alone, but relate to raw material as well as the products of labor, has been seized upon by them as a proof of their theory that low prices have been caused by the appreciation of gold in consequence of the displacement of silver as a coincident monetary unit. They point to the enormous increase in the volume of business during the last twenty years, and the small relative increase in the absolute amount of gold, in terms of which this wonderful new volume of business must be measured. A fall of prices, they argue, is a consequence of these phenomena; a restoration of silver by means of a strong monetary union composed of the leading commercial countries would, in their opinion, result in an advance in prices. While those who hold different views upon the real cause of the depression concede that the increase of products has been relatively much greater than the increase of the supply of gold, they point to the coincident fact that one of the peculiar factors of the present depression, differing in this respect from all preceding, is that there has been at no time a scarcity of money; that, in fact, there has been a plethora of money, and a very slight demand for it. The rates of interest and discount have been uniformly low. If there had been a scarcity of money, resulting from a scarcity of gold, or an insufficient new supply of gold to measure the increased volume of business, the very opposite of this—that is, the rise of the rates of interest and discount—should naturally have taken place. A very important point neglected by the German bimetallists in this discussion is the vast increase of the credit system which has taken place contemporaneously with the increase in production. With this extension the importance of coin as a medium of exchange has diminished. The sum of exchanges affected by the Reichsbank in Germany in 1874 was \$101,388,000; in 1884, \$6,267,730,000. The annual sum of the world's exchanges affected by the credit system is more and more doing away with the necessity for the actual movement of coin.

THE UNITED STATES.

1837.—The depression of 1837 was the result of financial troubles. The expansion of credit brought the train of evils of this period. There were many circumstances which seemed to aggravate the difficulties of the time, but they were mostly of a financial nature. Speculation, unsatisfactory financial condition of the country, inflation of the currency, unnatural extension of the system of internal improvements, short crops, overtrading, extension of credits—all these contributed their influence in causing a crisis, and the crisis, aggravated, grew into an industrial depression, although wages were not materially affected and the volume of production and of general business were kept remarkably steady. The influence of the distribution of the surplus revenue did much to aggravate the depression of the period under consideration. This surplus gave foreign investors confidence in the credit of the states, and many of them borrowed money for the prosecution of improvements. Men were taken from productive and put to work in non-productive undertakings, as the result of the existence of a credit based upon the knowledge of the large surplus in the treasury of the country. The natural result of the transfer of labor from productive to non-productive enterprises was the cessation of the production of the commodities of life. Great importations necessarily followed, calling for large shipments of specie to foreign countries. These conditions existed until the crash came, and then came the aggravation resulting from the distribution of the surplus itself.

Governor Thomas, of Maryland, in his message of December 27, 1842, used the following significant language:

“Nothing has influenced more fatally the evil councils by which so many of the states have become involved than the delusive expectations—rekindled constantly as fast as they are quenched—of pecuniary largesses from the national treasury for state purposes. The distribution law (miscalled the deposit act), which beggared the general government, whilst but few of the recipients of its bounties have been enriched, caused a most unfortunate revolution in public feeling, if not in public opinion. The possession of that fund, stimulating as it did the wildest speculations, destroyed at once all those salutary restraints found in the habits of the people and the conditions and powers of their local governments. An inexhaustible fountain of wealth, it was believed, had been opened, which was to flow in perennial streams into the state treasuries. State legislators, it was thought, were no longer to be limited in their operations, or abridged in their expenditures, by the amount of revenue they might be emboldened to take directly by taxes from the pockets of the people. A new source of supply was to come through the breach made in the federal constitution. Private property was to be obtained for public purposes by a less perceptible, because more circuitous, route. High tariffs were to be levied to supply not only the demands of the national treasury, but, in conjunction with the land sales, to furnish a surplus for distribution after that deposited

was exhausted. Under the influence of these and similar delusions, the large and oppressive debt of Maryland has been contracted."^a

The depression resulting from the crisis of 1837 continued with more or less severity for four or five years.

1847.—After the effects of the financial disturbances of 1837 had passed away a reasonable degree of prosperity was experienced, and then came many changes in the tariff. Prices became reduced, not entirely through the influence of tariff changes, for there were coöperating causes, but certainly there was a decline in prices after the increase of duties in 1841.^b In 1843 imports began to increase. The revival of trade, which came with the reaction, brought the country to a state of considerable prosperity. In 1846 came another change in the tariff, and much agitation and discussion followed. Apprehension arose, fluctuation of prices ensued, imports largely increased, and the shipment of gold to foreign countries increased accordingly. The industries of the country became affected in the way of prices and profits, although the general business of the country in volume was not seriously involved. The years 1847 and 1848 passed with sufficient depression, however, to constitute those years a period of stagnation. The Mexican war had but little if any influence upon the commercial or industrial features of this period.

1857.—The industrial depression of 1857–58 was incidental to the financial panic. Wages were not affected to any great extent, nor was the volume of business. The total commerce of the country rose to a very high point in 1857, and fell more than \$100,000,000 from that point in 1858, but rose again in 1859. Speculation, extension of credit, and all the usual accompaniments of financial disturbances ushered in the period. The only extensive investigation that has been observed relative to this period was made by a committee of the Boston Board of Trade, appointed at the annual meeting in January, 1858, "to make a deliberate and thorough investigation into the causes of the recent monetary difficulties and mercantile embarrassments, with a view to the adoption of such remedies as the nature of the case will allow." This committee made its report in April, 1858. The committee, disclaiming, all political and partisan bias, considered among the causes of the disturbances the effects of the tariff of 1846, but they remarked:

"The injurious effects of this measure have, doubtless, been materially modified by peculiarly marked events; such as the famine in Ireland, demanding an extraordinary export of breadstuffs from the United States, and by the discovery of the rich and extensive gold mines of California, by which many hundred millions of gold have been rapidly added to the currency of the world."

The committee concluded that the discovery of gold in California and Australia were events to be placed among the first and most influential

^aHistory of the Surplus Revenue of 1837; by Edward G. Bourne. G. P. Putnam's Sons, New York, 1885.

^bFinancial History of the United States; Bolles, page 445.

causes which, by their excessively stimulating character, had a tendency to produce the commercial embarrassments of the period. This committee, which was composed of gentlemen well known in mercantile and manufacturing circles, after referring to these two great causes as stated, makes some most valuable suggestions as to the general causes of the financial troubles of 1857, and these are so interesting that they are given quite at length, as follows:

"We include the production of the gold mines of Australia, because, from the intimate relations and sympathy between the commerce of England and her colonies and that of the United States the trade of Australia is as open to our ships as to theirs. Some of the effects of these discoveries, together with the nearly contemporaneous discovery of the vast deposits of guano in the Chincha Islands, made so opportunely to meet the necessities of agriculture, were immediately shown in a sudden and unparalleled stimulus to commerce. As if by the power of magic, the style and model of the ships soon after built were almost entirely changed, the genius of the naval architect was exercised to its utmost power, and a splendid fleet of clippers, of large class, of symmetrical proportions, and of hitherto unrivaled speed, were brought into service, contributing largely to the increase of tonnage in the United States, which increase from the year 1846 to 1856 amounted to 2,309,567 tons, or nearly 92 per cent.

"Many of these ships having carried large and remunerative freights from the Atlantic cities to San Francisco, proceeded to China, Manila, and to India, for return freights to the United States or to England, and by their own competition were compelled to accept rates so low as to encourage those merchants already engaged in the India and China trade to import much more freely than before, and also to induce others to embark in that branch of business. Commerce with other ports in the Pacific was also rapidly extended, and the sudden and unprecedented increase in tonnage was only equalled by a somewhat corresponding development and extent of trade with the Pacific, the East Indies and Australia. The transfer, within a short time, of a large amount of labor from the United States to the gold mines and to other departments of industry in California, caused a rise in the price of labor. The influx of gold changed existing values of property and induced an excessive expansion of bank loans and issues, as well as of individual credit. This was followed by a spirit of speculation and of overtrading, which steadily increased, until the prices of nearly all kinds of property had reached a point too unnatural to be permanently maintained.

"This extraordinary impulse to commerce was continued and sustained by the war in the Crimea, which required a large amount of tonnage for the transport service; and although British vessels were more generally thus employed, yet a larger 'carrying trade,' from India and China to Great Britain, remained to be prosecuted by American vessels. The withdrawal by England and France of a vast amount of capital and of productive labor from the ordinary channels of commerce to carry on the war could not fail to create an unfavorable influence on the financial condition of those countries, and by our intimate relations with them, on ours also. Coincident with and immediately following the preceding marked and peculiar events, the great staple productions of this country, as well as imported merchandise, affected by some of the causes already named, bore prices which required a much larger capital to represent than formerly. This was especially true of cotton,

the price of which was also enhanced by moderate crops for several consecutive years, by an over-stimulated condition of the manufacturing interests, here and in Europe, and by the employment of more spindles than was required to meet the demand of consumers.

"Another and by no means unimportant cause was the recent short crop of sugar in Louisiana, which led to unusually large importations of that article from those foreign countries to which the exports of the United States are of comparatively small value. High prices, speculation and absorption of capital followed, creating a balance of trade against this country, so far as it concerns that branch of business to be paid in specie.

"Again, the abuse of the credit system has been one of the most potent causes, not only of producing the recent sad commercial embarrassments, but of bringing them to a disastrous crisis, and of leading to a general prostration of business. Under that abuse, we include first, and as being more influential than is generally admitted, the absorption of a vast amount of actual capital in railroads, and the creation of an immense floating debt, sustained in many cases at high rates of interest, and constituting a heavy item in our foreign debt.

"No intelligent and reflecting mind can doubt that the railroads in the United States have advanced and will continue to promote the material interests of the country in a degree not easily overestimated. But it must be admitted that far too many rival lines have been constructed and that a great amount of capital and labor have thus been injudiciously appropriated. The immense foreign debt of the United States may, we think, be regarded in some degree as the abuse of credit. By foreign debt we mean not only balances due from the merchants of America to those of Europe, but also investments of foreign capital in American securities. This cannot have existed without more or less unfavorable influence on our finances.

"The cotton and woollen manufacturing corporations of this commonwealth and in some of the adjacent states, established by the enterprise of some of our most intelligent and worthy fellow-citizens, and which have done so much to develop the industry and to promote the interests of the whole community, we think should bear some share of the general charge of the abuse of credit. The system of conducting their business with entirely inadequate capital, as has been done in some instances, may have been the result of unforeseen and, to some extent, unavoidable circumstances; but we cannot doubt that it has had an injurious effect on public credit.

"These effects might have been materially modified by purchases of stock in limited quantity, proportionable to the deficiency of capital and means. Indeed, to us it seems evident that the policy of the proprietors of those cotton manufacturing establishments which have not a sufficient amount of active capital, by purchasing (as they have done) cotton early in the season, and a large portion of the stock required for the whole year, amounting in the aggregate to many millions of dollars, and on terms almost equal to cash by the time the cotton arrived at the mill, with the practice of selling their fabrics on credit of six, of eight, and even of twelve months, and this by borrowing money often at high rates of interest, had the effect to absorb a vast amount of the monied capital of this State, and it seems to us should be regarded as an abuse of credit.

"Again, such a policy placed a great amount of cash facilities at the disposal of the cotton producers in the early part of the cotton season, and thus contributed largely to their ability and to that of speculators

to raise and to maintain prices far too high for the interest of the whole community. It is estimated that the cotton manufacturers of the Northern States have required, for a few years past, about one-fifth part of the average crop of cotton raised in the United States, which, if taken at the average production of the last three years, is about 600,000 bales; and, at the assumed average cost of ten cents per pound, amounts to not less than \$25,000,000 annually. The purchases of so large proportion of the year's stock by the manufacturers in the United States (which have often been made to a considerable extent previous to 1st of January), have had no inconsiderable effect on the finances of the Northern States, by causing a large accumulation of cash funds in the New York City banks. These banks, for several years past, have been the collection agents between the South and the North, and especially as it relates to Massachusetts, since her banks have been prohibited from allowing interest on deposits of individuals.

"The consignment of cotton to New York merchants under advance has created a large amount of funds from that source in New York for the time being, however the ultimate balance may have been between the North and South. May not this fact, added to the effects of the policy of the manufacturers, as before described, and the known practice of the New York banks in making extensive demand loans, based on these deposits, in a measure explain the reasons for the sudden contraction of their loans just preceding the late suspension of specie payment? Having continued the reduction of loans after the cessation of specie shipments to Europe, may it not have been for the purpose of fortifying themselves against their Southern depositors, who, when confidence was shaken and a panic existed, were as likely to draw specie as were their city depositors?

"We believe it will be generally conceded that the too liberal and excessive issues of foreign 'letters of credit' is another abuse of the credit system, and that this, in connection with the causes already mentioned, did much to encourage importations of merchandise from Europe and India to an extent very far beyond all former precedent, leading to the accumulation of stocks of East India produce, and of European goods also, in violation of the great law of supply and demand and to a consequent decline in prices.

"The holding of these immense stocks long before they were required for consumption contributed largely toward creating a balance of trade against the United States to be met in specie. Especially is this true, so far as regards the trade with India, China, and Manila, since our exports to those countries are of little value as compared with our importations from them.

"Another instance of abuse of credit may be seen in the business policy pursued by many, and perhaps we may be justified in saying by a majority, of those engaged in mercantile pursuits. An inordinate desire either for rapid accumulation of wealth or for means to sustain extravagant expenditure, or, in some instances, an excessive spirit of enterprise, induced the transaction of business of too great magnitude in proportion to the actual capital and available means. This, with the practice of giving long, indiscriminate, and too widely extended credit, often placed large amounts of property in the hands of inexperienced and enterprising merchants, who possessed superficial knowledge of business, were ignorant of sound principles of finance, and were often tempted into speculations and into such investments as placed beyond their reach the very resources which ought to have been paid to their creditors to sustain their confidence. The whole community, so

far as this system of credit generally prevailed, became peculiarly exposed and sensitive to the first serious disturbing element in commerce, and consequent curtailment of credit and decline in prices of the staple commodities of the country. This, we think, was clearly illustrated in the late commercial embarrassments which existed between the Atlantic cities and the interior of this country."

They supplemented the causes, as stated in this long abstract, with a review and criticism of banking systems, of demand loans, of faulty exchange, and of other matters which naturally grow out of a vicious credit system. The conclusions of this committee have been given at considerable length because they seem to embody, so far as research can develop, the accepted facts relating to the great crash of 1857.

The rates of wages do not seem to have been much affected during this period, although there were many stoppages and many laborers worked on short time. The volume of business preserved its status to a wonderful degree, yet the period has passed into history as one of the severest depression that has occurred in this country. The revival of business came slowly, until the war gave activity to all branches of trade.

1867.—The year 1867 can hardly be called one of financial panics or industrial depression, although "hard times" apparently prevailed. The stimulation to all industries resulting from the war, the speculative enterprises undertaken, the extension of credits, and the slackening of production necessarily caused a reaction, and a consequent stagnation of business; but the period was hardly spoken of by business men as one of any particular hardship. People for awhile began to be conservative; but the impetus engendered by the war could not be overcome, and it was not until the crash of 1873 that the effects of undue excitement in all branches of trade and business were thoroughly realized.

1873-78.—The causes alleged for the disturbances in trade and industry during this period are very numerous. The United States felt the results of German overtrading and over speculation as reflected through Great Britain, and these and other exterior influences, combined with ample causes of our own, without looking abroad, caused the financial crises of 1873. There had been a period of excessive speculation, especially in railroads and real estate; large failures following that of Jay Cooke, inflation of the currency, high protective tariff, large immigration, and the unnatural stimulus given to industry by the war, brought the monetary affairs of the country to a crisis, resulting in general distrust, fall of prices, apprehension, and all the train of evils which follow such crises. The result was an industrial depression, lasting until the latter part of 1878, and this industrial depression was far more severe than any that preceded it or that which has followed it. This depression was so great, and the disturbances resulting from it of such varied and distressing ramifications, that it stimulated the study of panics and depressions to a greater extent than any preceding period. The period was, however, like most of those that had preceded it, so far as

character was concerned, being ushered in by financial disturbances, and they followed in turn by industrial depressions. The causes alleged for the crisis and depression which followed them, as remarked, were varied indeed. Two Congressional committees, one under the chairmanship of the Hon. Hendrick B. Wright, of Pennsylvania, and the other under the chairmanship of Hon. Abram S. Hewitt, of New York, were appointed, with special instructions to investigate the causes of the depression. Later on, the Senate Committee on Education and Labor, under the chairmanship of Hon. Henry W. Blair, made a wide investigation of the affairs of labor and capital, and many of the witnesses who testified before this committee undertook to give the causes of the depression existing from 1873 to 1878. The volumes constituting the testimony taken before these three committees have been carefully examined, and the causes of industrial depressions as given by the various witnesses classified. These alleged causes constitute a most interesting feature in the history of industrial depressions, and they are given in classified and alphabetical form, as follows:

CAUSES OF DEPRESSIONS AS ELICITED BY COMMITTEES OF CONGRESS.

Administrations—

change in the policies of.

Agitators—

undue influence of.

Business enterprises—

stoppage of, by panic.

Capital—

influx of foreign.

aggressive inroads of.

excessive conversion of circulating, into fixed.

centralization of.

interests of, not identical with those of labor.

small capitalists swallowed up by larger ones.

manipulations of the money power.

combinations of.

undue accumulation of.

Cigar factories—

tenement house.

Confidence—

want of.

Consumption—

under.

Corporations—

land grants to.

Corruption—

in municipal governments.

Credits—

expansion of.

Crises—

commercial.

Currency—

contraction of.

inflation of.

agitation of.

fluctuations of.

depreciation of.

deficient volume of the.

withdrawal of, from circulation for speculation.

inflation of the, followed by contraction.

destruction of the.

faulty legislation regarding.

conversion of the Government, into interest-bearing bonds.

losses of creditors during the depreciation of, and of debtors during the appreciation of.

losses of workmen by goods rising sooner than their wages during the depreciation of, and wages falling before goods during the appreciation of.

suspension of specie payments.

over-issue of irredeemable paper money.

distrust of paper money.

disturbed value of gold and silver.

resumption of specie payment.

changing the measure of the value of money.

fraud of the finance system.

borrowing depreciated money by Government and individuals.

Currency—Continued.

- demonetization of silver.
- remonetization of silver.
- issue of greenbacks.
- refunding act.
- passage of resumption act in 1875.
- solution of the labor question turns entirely on the circulation of.

Debts—

- contraction of.
- contraction of large foreign, prior to 1874.

Demand—

- want of.

Depression—

- prolonged by want of fixed policy for return to specie payment.

Destitution—

- caused by sickness.

Education—

- lack of.
- common school, not practical.
- too exclusively intellectual.
- indifference to.
- defects of system of.
- want of technical training.
- want of industrial schools.
- economic ignorance.

Electricity—

- great utilization of the power of.

Employment—

- want of.

Extravagance—

- induced by credit.
- of dress.
- in Government expenses.

Fashions—

- in dress, devotion to.

Food—

- adulteration of.

Franchises—

- Government not receiving enough for.

Girls—

- want of training of, for future duties.

Goods—

- importation of.

Immigration—

- immigration of Chinese.

Income tax—

- repeal of the.

Indebtedness—

- national and other.

Indolence—

- instinctive and widespread.

Indulgences—

- harmful.

Intemperance.

Interest—

- too high rates of.

Invention—

- the great development of.

Knowledge and wealth—

- lack of material.

Labor—

- inefficiency of.
- thriftlessness of.
- lack of interest of the laborer in his work.
- lack of combining power of.
- too small wages to.
- unadjustment of.
- competition of.
- two many hours of.
- handicapped by legislation.
- surplus of, in cities.
- unjust taxation of.
- coolie.
- convict.
- female.
- child.
- cheap imported.
- want of economy of.
- interests of, not identical with those of capital.
- improvident and misdirected efforts of laboring classes.
- social differences between the laboring classes and capitalists.
- neglect of laboring men by the aristocracy.

Laws—

- bankrupt.
- conspiracy.
- land.
- navigation.
- patent.
- trustee.
- relative to the guardianship of children.
- want of homestead exemption.

Legislation—

- class.
- faulty.
- privileged.
- withholding franchise from women.

Machinery—

- improper use of.
- labor-saving.

Miscalculation.

Mismanagement—

- financial.

Monopoly—	Stimulation—
land.	artificial.
telegraph.	Stocks—
news.	watered.
railroad.	Systems—
interest.	monetary.
invention.	competitive.
National debt—	educational.
paying the, before the development of	contract.
the industries of the country.	Government contract.
Necessaries of life—	truck.
speculation in the.	credit.
Non-producers—	national banking.
too many.	political, perversion of.
Panic of 1873.	wage.
Passes—	financial, erroneous.
free.	social, erroneous.
Produce exchange—	Tariff—
fluctuations in.	protective.
Production—	restrictive.
planless.	agitation of.
over.	improperly adjusted.
Products—	unjust discrimination of.
competition of, in market.	changes of.
Profits—	Taxation—
unequal division of.	indirect.
Railroads—	needless.
speculation in.	unequal.
pools of.	over, of land.
war of rates of.	over, of labor.
excessive freight rates of.	under, of incomes.
excessive building of.	under, of capital.
land grants to.	bonanza farms escaping.
fictitious values in.	capitalists escaping.
reformed system of.	Telegraph—
Reaction.	high rates of.
Revenue—	Tobacco.
faulty collection of.	Values—
Sanitary conditions—	expanded.
bad.	War—
Speculative era—	absorption of capital by.
collapse from.	destruction of property during.
Speculation.	Work—
Steam—	piece.
great utilization of the power of.	

The foregoing causes, in their variety, in their contradictory character, and in their extent, show how thoroughly the depression impressed itself on men's minds. They also teach the difficulty of crystallizing into any formula those features of an industrial depression which can be considered as constituting any economic law.

The industrial depression of 1873-78 was very severe in extent and duration, although, like all other depressions, there was much appre-

hension to be added to the reality. As an instance of this, it was currently said, and generally believed, although the source of the information was never given, that there were at least 3,000,000 mechanics out of employment in the United States, and that the state of Massachusetts alone had at least 300,000 mechanics out of employment. An investigation conducted in June, 1878, and repeated in November of the same year, through all the towns and cities of the commonwealth named, showed the number of people out of employment who desired to be employed, and who would have been employed had it not been for the depression, to be about 29,000 (a) instead of 30,000. The absurdity of the statement of 300,000 being out of employment, in consideration of the fact that there were only about 318,000 in the state ordinarily engaged at that time in mechanical industries, stood unchallenged for nearly a year; yet the depression was severe, indeed, and the remarkable industrial activity which preceded it extended its influence over into the period of depression in which the country now finds itself. Activity was restored in the latter part of 1878, and continued, with more or less prosperity accompanying it, until 1882.

1882-86.—The depression for this period came in gradually and without the usual accompaniments of financial panics and crises. It is the real period under investigation, and there are so many facts, features, and conditions to be considered, that its elements properly form the subject for a separate chapter.

a In June the number was 28,508, and in November of the same year, 23,000.

CHAPTER II.

THE INDUSTRIAL DEPRESSION IN THE UNITED STATES, 1882-86.

The Extent of the Depression.—It is easy, from observation, to understand that an industrial depression exists, but difficult to determine to what extent it prevails. When the agents of the Bureau left their field-work a far different feeling was noticeable from that existing in the summer when they entered upon the collection of information. From their observations, and other sources from which it has been possible to form conclusions, it is undoubtedly true that out of the total number of establishments, such as factories, mines, etc., existing in the country, about 5 per cent. were absolutely idle during the year ending July 1, 1885, and that perhaps 5 per cent. more were idle a part of the time; or, for a just estimate, $7\frac{1}{2}$ per cent. of the whole number of such establishments were idle or equivalent to idle during the year named. According to the census of 1880, there were, in round numbers, 255,000 such establishments, employing upwards of 2,250,000 hands. If the percentage stated above is correct, and it is believed to be approximately so, then there were possibly 19,125 establishments idle or equivalent to idle, and 168,750 hands out of employment, so far as such establishments were concerned, during the year considered. The percentage stated, if erroneous at all, is probably too large, because the idle establishments were to a large extent small and poorly equipped. In some industries the percentage of idle establishments would be much greater than the average given, while in other industries the percentage given is much too large. Applying this percentage, however, to the whole number of people employed in all occupations in the United States, which in 1880 was 17,392,099, there might have been 1,304,407 out of employment; but this is a number evidently too large, because it applies to all occupations—those engaged in agriculture, professional and personal service, trade and transportation, mechanical and mining industries, and manufactures. The percentage should be applied only to those engaged in agriculture, trade and transportation, mechanical and mining industries, and manufactures. There were engaged in these four great branches, as shown by the census of 1880, 13,317,861 persons. Applying the percentage arrived at ($7\frac{1}{2}$ per cent.), we obtain a total of 998,839 as constituting the best estimate of

the possibly unemployed in the United States during the year ending July 1, 1885 (meaning by the unemployed those who, under prosperous times, would be fully employed, and who during the time mentioned were seeking employment), that it has been possible for the Bureau to make. It is probably true that this total (in round numbers 1,000,000), as representing the unemployed at any one time in the United States, is fairly representative, even if the laborers thrown out of employment through the cessation of railroad building be included.

This estimate exhibits the extreme possibility of non-employment at the worst point of the depression, but it should be remembered that even in so-called prosperous times there are from two to two and one-half per cent. of the forces considered out of employment. Prosperity often shifts employment from one class to another.

A million of people out of employment, crippling all dependent upon them, means a loss to the consumptive power of the country of at least \$1,000,000 per day, or a crippling of the trade of the country of over \$300,000,000 per year. The earnings of the people involved in the classes named above would not be far from \$600 each per annum, representing total earnings of \$7,990,716,600. Six hundred dollars has been taken as an average income for the number used, because, according to the best estimates, this constitutes a fair average—\$400 as an average for those working for wages, and \$1,000 for those who were working on salary. The constituent parts of the total number lead to the conclusion that \$600, taking all into consideration, is a fair average. It is also probably nearly true that the potential 1,000,000 out of employment could not earn more than \$1 each per day for the subsistence of themselves and families. The wage earnings, then, of the million that should be fully employed are crippled one-half, or to the extent of over \$300,000,000 per annum, a sum sufficient to cause a reaction in business and a general curtailment of expenses, from which result apprehension and timidity among all classes. It is curious to observe, however, that while the severity of the depression causes a crippling to the extent of several hundred millions of dollars per year of the consuming power of the people, the volume of business transacted is not crippled comparatively to any such extent.

The popular idea of the severity of the present depression would lead one to suppose that all branches of business were severely stagnated, and that failures were the order of the day. An examination of some of the principal commercial and industrial facts available teaches the error of popular opinion in this respect. The following table exhibits the failures in the United States for twenty-nine years; that is, from 1857 to 1885, inclusive. The figures prior to 1866 are not as trustworthy as one could wish, but since then they are quite complete; at least they are sufficiently so to convey a fair idea of the relative losses by bad debts and disorganized business for the years named.

FAILURES IN THE UNITED STATES, 1857-85. a

Years.	Number.	Liabilities.		Years.	Number.	Liabilities.	
		Amount.	Average.			Amount.	Average.
1857.....	4,932	\$291,750,000	\$50,154+	1872.....	4,069	\$121,056,000	\$29,750+
1858.....	4,225	95,749,000	22,662+	1873.....	5,183	228,499,900	44,086+
1859.....	3,913	64,394,000	16,456+	1874.....	5,830	155,239,000	26,627+
1860.....	3,676	79,807,000	21,710+	1875.....	7,740	201,000,000	25,968+
1861.....	6,993	207,210,000	29,631+	1876.....	9,092	191,117,786	21,020+
1862.....	1,652	23,049,000	13,952+	1877.....	8,872	190,669,936	21,401+
1863.....	495	7,899,900	15,950+	1878.....	10,478	234,382,132	22,369+
1864.....	520	8,579,000	16,498+	1879.....	6,658	98,149,053	14,741+
1865.....	530	17,625,000	33,254+	1880.....	4,735	65,752,000	13,886+
1866.....	1,505	53,783,000	35,736+	1881.....	5,582	81,155,932	14,538+
1867.....	2,780	96,666,000	34,771+	1882.....	6,738	101,547,564	15,070+
1868.....	2,608	63,694,000	24,422+	1883.....	9,184	172,874,172	18,823+
1869.....	2,799	75,054,054	26,814+	1884.....	10,968	226,343,427	20,636+
1870.....	3,546	88,242,000	24,884+	1885.....	10,637	124,220,321	11,678+
1871.....	2,915	85,252,000	29,245+				

a Through the courtesy of R. G. Dun & Co., of New York. The statistics for the years 1862 to 1865, owing to the war, do not comprehend the failures for the Southern States. They are incomplete also for the years prior to the war, but the table contains the most trustworthy data otherwise obtainable.

By the foregoing table of failures it will be seen that during the year 1885 there were 10,637, involving \$124,220,321 of liabilities, or an average liability of \$11,678. While the number of failures for 1884 was but little more than the number for 1885, the total amount of liabilities was very nearly double, and the average liability for each failure \$20,636. It will also be observed that the total amount of liabilities for 1885 was less than the amount of liabilities for either of the years 1857, 1861, 1873, 1874, 1875, 1876, 1877, 1878, 1883, or 1884. These certainly are very significant facts, when the great increase in the bulk of business transacted is taken into consideration, and they show conclusively that, while there has been widespread depression, the facts as to actual business disasters, so far as amount is concerned, or even average liability, for the year 1885, present an exceedingly satisfactory exhibit.

If from failures we turn to production, we shall find still more gratifying results. The two tables following show the production of Bessemer steel ingots and the production of rails, in net tons of 2,000 pounds, for the United States from 1874 to 1885, inclusive: a

PRODUCTION OF BESSEMER STEEL INGOTS IN THE UNITED STATES, 1874-85.

Year.	Tons of 2,000 pounds produced in—			
	Pennsyl- vania.	Illinois.	Other States.	Total.
1874.....	85,625	62,492	43,816	191,933
1875.....	148,374	136,356	90,787	375,517
1876.....	258,452	171,963	95,581	525,996
1877.....	328,599	111,299	120,689	560,587
1878.....	426,481	179,500	126,245	732,226
1879.....	514,165	250,960	163,827	928,972
1880.....	643,894	304,614	254,665	1,203,173
1881.....	844,501	375,763	318,883	1,539,167
1882.....	933,631	397,436	365,383	1,696,450
1883.....	1,044,396	273,325	336,906	1,654,627
1884.....	1,031,484	389,068	170,043	1,590,595
1885.....	1,109,034	366,659	228,064	1,703,757

PRODUCTION OF STEEL AND IRON RAILS IN THE UNITED STATES, 1874-85.

Year.	Tons of 2,000 pounds.				
	Bessemer steel.	Open-hearth steel.	Total steel.	Iron rails, all kinds.	Total iron and steel.
1874	144,944		144,944	584,409	729,413
1875	290,863		290,863	501,649	792,512
1876	412,461		412,461	467,168	879,629
1877	432,169		432,169	332,540	764,709
1878	550,398	9,297	559,795	322,890	882,685
1879	683,964	9,149	693,113	420,160	1,113,273
1880	954,460	13,615	968,075	493,762	1,461,837
1881	1,330,302	25,217	1,355,519	488,581	1,844,100
1882	1,438,155	22,765	1,460,920	227,874	1,688,794
1883	1,286,554	9,186	1,295,740	64,954	1,360,694
1884	1,116,621	2,670	1,119,291	25,500	1,144,851
1885	1,074,607	1,400	1,076,007	14,692	1,090,699

By the first of the foregoing tables it will be seen that the product of Bessemer steel ingots for 1885 was larger than for any preceding year, the increase over 1884 alone being 161,162 tons. The table showing the production of rails exhibits a decrease of the total production, but this is owing to the cessation of railroad enterprises. It also shows the increasing use to which steel is put, because, by examining these two tables, we see that there is an increase in the production of steel ingots and a decrease in the production of steel rails.

The statistics of railroad building are interesting in this connection. We give the following table of the number of miles of railroad constructed and in operation in the United States each year from 1830 to 1885, inclusive:

MILES OF RAILROAD IN OPERATION AND MILES BUILT EACH YEAR IN THE UNITED STATES, 1830-85.^a

Year.	Miles in operation.	Increase.	Year.	Miles in operation.	Increase.
1830	23		1858	26,968	2,465
1831	95	72	1859	28,789	1,821
1832	229	134	1860	30,635	1,846
1833	380	151	1861	31,286	651
1834	633	253	1862	32,120	834
1835	1,096	465	1863	33,170	1,050
1836	1,273	175	1864	33,908	738
1837	1,497	224	1865	35,085	1,177
1838	1,918	416	1866	36,401	1,316
1839	2,302	389	1867	39,250	2,849
1840	2,818	516	1868	42,229	2,979
1841	3,535	717	1869	46,844	4,615
1842	4,026	491	1870	52,914	6,070
1843	4,185	159	1871	60,298	7,379
1844	4,377	192	1872	66,171	5,878
1845	4,633	256	1873	70,268	4,097
1846	4,930	297	1874	72,885	2,617
1847	5,598	668	1875	74,096	1,211
1848	5,966	368	1876	76,808	2,712
1849	7,365	1,399	1877	79,088	2,280
1850	9,021	1,656	1878	81,717	2,629
1851	10,982	1,961	1879	86,463	4,746
1852	12,908	1,926	1880	93,349	6,876
1853	15,360	2,452	1881	103,145	9,796
1854	16,720	1,360	1882	114,713	11,568
1855	18,374	1,654	1883	121,454	6,741
1856	22,016	3,642	1884	125,379	3,825
1857	24,503	2,487	1885		2,866

^a The statistics of railroad-building as given in this table are from Poor's Manual, and are approximately correct. The compiler of that manual has found considerable difficulty in harmonizing statements from year to year, but has on the whole been fairly successful.

It will be noticed by the foregoing table that just previous to the financial panics of 1857, 1873, and 1882 there was an immense increase in the mileage of railroads constructed in the United States, and that, in the years following, there was a very notable decrease in the number of miles built annually.

The total production of pig-iron since 1870 and its distribution in each year between furnaces using anthracite coal, bituminous coal, and charcoal as fuel, is shown in the following table:^a

YEARLY PRODUCTION OF PIG-IRON, ACCORDING TO FUEL USED IN THE UNITED STATES, 1870-85.

Year.	Tons of 2,000 pounds.			
	Anthracite.	Charcoal.	Bituminous.	Total.
1870	930,000	865,000	570,000	1,865,000
1871	956,608	885,000	570,000	1,911,608
1872	1,369,812	500,587	964,159	2,854,558
1873	1,313,754	577,620	977,904	2,868,278
1874	1,202,144	576,557	910,712	2,689,413
1875	908,046	410,990	947,545	2,266,581
1876	704,578	308,649	900,009	2,093,236
1877	914,797	317,843	1,061,945	2,314,585
1878	1,092,870	293,399	1,191,092	2,577,361
1879	1,273,024	358,873	1,438,978	3,070,875
1880	1,807,651	537,558	1,950,205	4,295,414
1881	1,734,462	638,838	2,268,284	4,641,584
1882	2,042,128	697,906	2,438,078	5,178,122
1883	1,885,596	571,726	2,689,650	5,146,972
1884	1,566,453	458,418	2,544,742	4,569,613
1885	1,454,390	399,844	2,675,635	4,529,869

It is interesting to mark the change in prices of pig-iron for a series of years, and this is shown in the next table of prices of No. 1 anthracite foundry pig-iron in Philadelphia, since 1870:^a

AVERAGE MONTHLY PRICES FOR PIG-IRON (NO. 1 ANTHRACITE, AT PHILADELPHIA), 1870-85.

Year.	Price per ton of 2,240 pounds.				
	Opening.	Highest.	Lowest.	Closing.	Average.
1870	\$36½	\$36½ Jan.	\$31½ Dec.	\$31½	\$33½
1871	30½	37½ Nov.	30½ Jan.	37½	35½
1872	37	53½ Sept.	37 Jan.	47½	48½
1873	45½	48½ Mar.	36½ Dec.	32½	42½
1874	32	32 Jan.	24 Dec.	24	30½
1875	25½	27 Mar.	23½ Dec.	23½	25½
1876	23½	23½ Jan.	21½ Dec.	21½	22½
1877	20½	20½ Jan.	18 Aug.	18	18½
1878	18½	18½ Jan.	16½ Nov.	17	17½
1879	17½	30½ Dec.	17½ Jan.	30½	21½
1880	40	41 Feb.	28 June.	28	28½
1881	25	28 Mar.	24 June.	26	25½
1882	26	26½ Oct.	26½ Apr.	25½	26½
1883	28	28 Jan.	21 June.	31	29½
1884	20½	20½ Jan.	18½ Dec.	18½	19½
1885	18	18½ Oct.	17½ June.	18½	18

^a The Commercial and Financial Chronicle, January 30, 1886.

The total production of coal for the years 1882, 1883, 1884, and 1885 was as follows:

PRODUCTION OF BITUMINOUS COAL IN THE UNITED STATES, 1882-85.

States.	Tons produced in—			
	1885.	1884.	1883.	1882.
Pennsylvania.....	25,000,000	24,000,000	24,000,000	22,000,000
Illinois.....	9,791,874	10,101,000	10,508,790	9,115,650
Ohio.....	6,750,000	9,000,000	8,230,000	9,450,000
Iowa.....	3,600,000	3,903,450	3,881,300	3,127,100
West Virginia.....	3,250,000	3,100,000	2,805,560	2,000,000
Missouri.....	1,500,000	2,500,000	2,250,000	2,000,000
Maryland.....	2,866,000	2,765,000	2,206,170	1,294,300
Indiana.....	1,000,000	2,260,000	2,560,000	1,976,470
Alabama.....	2,225,000	2,000,000	1,400,090	800,000
Kentucky.....	1,600,000	1,550,000	1,050,000	1,300,000
Colorado.....	1,400,000	1,334,270	1,000,000	948,000
Tennessee.....	1,100,000	1,200,000	1,000,000	850,000
Kansas.....	1,283,500	1,100,000	850,000	750,000
Wyoming Territory.....	766,500	1,000,000	700,000	631,000
Indian Territory.....	481,800	400,000	175,000	150,000
Virginia.....	630,000	350,000	225,000	100,000
New Mexico Territory.....	300,000	350,000	250,000	146,400
Washington Territory.....	281,672	307,000	260,000	225,000
Utah Territory.....	136,000	250,000	250,000	250,000
California.....	90,000	157,000	200,000	200,000
Georgia.....	170,000	200,000	200,000	175,000
Arkansas.....	547,000	150,000	75,000	50,000
Michigan.....	150,000	135,000	135,000	130,000
Texas ^a	125,000	125,000	100,000	.....
Oregon.....	43,000	60,000	60,000	80,000
Montana Territory.....	185,000	75,000	50,000	80,000
Dakota Territory.....	28,000	32,000	50,000	.....
Idaho Territory ^b	10,000	20,000	10,000	.....
Total.....	65,308,246	68,424,720	65,081,820	57,728,920

^a For year ending June 30, 1885.

^b Estimated.

If to the above the official figures of the production of anthracite coal be added, we have the total production of coal:

PRODUCTION OF ANTHRACITE AND BITUMINOUS COAL IN THE UNITED STATES, 1882-85.

	Tons produced in—			
	1885.	1884.	1883.	1882.
Anthracite, Pennsylvania.....	81,623,529	80,718,298	81,793,027	29,120,196
Bituminous, as above.....	65,308,246	68,424,720	65,081,820	57,728,920
Total.....	96,931,775	99,143,018	96,874,847	86,849,116

The aggregate production of coal last year was over 2,000,000 tons less than in 1884, larger than the production in 1883, and more than 10,000,000 tons greater than the production in 1882. Iron and coal are the great directing materials which indicate the welfare or the progress of other industries.

In the examination of the boot and shoe industry of Massachusetts, the following table becomes instructive: *a*

PRODUCTION OF BOOTS AND SHOES IN MASSACHUSETTS, 1859-85.

Years.	Cases.	Years.	Cases.
1859.....	684, 708	1873.....	1, 836, 553
1860.....	648, 539	1874.....	1, 390, 428
1861.....	497, 777	1875.....	1, 449, 180
1862.....	507, 812	1876.....	1, 521, 205
1863.....	568, 836	1877.....	1, 758, 026
1864.....	569, 263	1878.....	1, 048, 724
1865.....	718, 680	1879.....	1, 959, 577
1866.....	822, 750	1880.....	2, 263, 890
1867.....	918, 935	1881.....	2, 307, 781
1868.....	1, 010, 859	1882.....	2, 418, 551
1869.....	1, 343, 208	1883.....	2, 568, 038
1870.....	1, 250, 201	1884.....	2, 467, 322
1871.....	1, 304, 398	1885.....	2, 633, 075
1872.....	1, 451, 596		

It is shown by this table that the shipment of boots and shoes from Massachusetts for the year 1885 was larger than for any previous year. If we consult the volume of business done, we shall find figures which indicate that accompanying real depression there is a vast deal of apprehension.

The following table of imports and exports of merchandise since 1835 is exceedingly interesting and instructive, in showing how the volume of business, so far as commerce is concerned, is preserved: *b*

VALUE OF IMPORTS AND EXPORTS OF MERCHANDISE OF THE UNITED STATES, 1835-85.

Year ending—	Exports.			Imports.	Exports and imports.	Excess of exports.	Excess of imports.
	Domestic.	Foreign.	Total.				
Sept. 30—							
1835	\$100, 459, 481	\$14, 756, 321	\$115, 215, 802	\$136, 764, 295	\$251, 980, 097		\$21, 548, 493
1836	106, 570, 942	17, 767, 762	124, 338, 704	176, 579, 154	800, 917, 858		52, 240, 450
1837	94, 280, 895	17, 162, 232	111, 443, 127	130, 472, 803	241, 915, 830		19, 029, 676
1838	95, 560, 890	9, 417, 690	104, 978, 570	95, 970, 288	200, 948, 658	\$9, 008, 282	
1839	101, 625, 533	10, 626, 140	112, 251, 673	156, 496, 956	268, 748, 629		44, 245, 288
1840	111, 660, 561	12, 008, 371	123, 668, 932	98, 258, 706	221, 927, 638	25, 410, 226	
1841	103, 636, 236	8, 181, 235	111, 817, 471	122, 957, 544	234, 775, 015		11, 140, 073
1842	91, 799, 242	8, 078, 753	99, 877, 995	90, 075, 074	195, 953, 069	8, 802, 924	
June 30—							
1843c	77, 686, 354	5, 139, 335	82, 825, 689	42, 433, 464	125, 259, 153	40, 392, 225	
1844	99, 581, 774	6, 214, 058	105, 745, 832	102, 604, 606	208, 350, 438	8, 141, 226	
1845	98, 455, 330	7, 584, 781	106, 040, 111	113, 84, 322	219, 224, 438		7, 144, 211
1846	101, 718, 042	7, 865, 206	109, 583, 248	117, 914, 065	227, 497, 313		8, 330, 817
1847	150, 574, 844	6, 166, 754	156, 741, 598	122, 424, 349	279, 165, 947	34, 317, 249	
1848	130, 208, 739	7, 986, 806	138, 190, 515	148, 638, 644	266, 829, 159		10, 448, 129
1849	131, 710, 081	8, 641, 091	140, 351, 172	141, 206, 190	281, 557, 371		85, 027
1850	134, 900, 233	9, 475, 493	144, 375, 726	173, 509, 526	317, 885, 252		29, 123, 800
1851	178, 620, 138	10, 295, 121	188, 915, 259	210, 771, 429	399, 696, 688		21, 856, 170
1852	154, 931, 147	12, 053, 084	166, 984, 231	207, 440, 398	374, 424, 629		40, 456, 167
1853	189, 869, 162	13, 620, 120	203, 489, 282	263, 777, 265	467, 266, 547		60, 287, 983
1854	215, 328, 300	21, 631, 260	236, 959, 560	297, 623, 039	534, 582, 599		60, 663, 479

a Boston Daily Globe, January 1, 1886.

b From the report on the commerce and navigation of the United States, Bureau of Statistics, Treasury Department, Washington, December 1, 1885.

c Nine months, from September 30, 1842, to June 30, 1843.

VALUE OF IMPORTS AND EXPORTS OF MERCHANDISE, ETC.—Concluded.

Year ending—	Exports.			Imports.	Exports and imports.	Excess of exports.	Excess of imports.
	Domestic.	Foreign.	Total.				
June 30—							
1855	\$192,751,135	\$26,158,368	\$218,909,503	\$257,508,708	\$476,718,211		\$38,899,205
1856	266,438,051	14,781,372	281,219,423	310,432,310	591,651,733		20,212,887
1857	278,900,713	14,917,047	293,823,760	348,428,842	642,252,102		54,604,582
1858	251,851,033	20,660,241	272,011,274	263,338,654	535,349,928	\$3,672,620	
1859	278,392,080	14,509,971	292,902,051	331,333,341	624,235,392		88,431,290
1860	316,242,423	17,333,634	333,576,057	353,616,119	687,192,176		20,040,063
1861	204,899,616	14,654,217	219,553,833	280,310,542	508,864,375		69,756,709
1862	179,644,024	11,026,477	190,670,501	189,356,677	380,027,178	1,313,824	
1863	186,003,912	17,960,535	203,964,447	243,335,815	447,300,262		39,371,868
1864	143,504,027	16,333,961	159,837,988	310,447,283	475,285,271		157,609,295
1865	186,940,248	20,089,055	206,029,303	238,745,580	404,774,883		72,716,277
1866	337,518,102	11,341,420	348,859,522	434,812,066	783,671,588		85,982,544
1867	279,786,809	14,719,332	294,506,141	395,761,096	690,267,237		101,254,955
1868	269,389,900	12,564,999	281,954,899	357,436,440	639,389,339		75,483,541
1869	275,166,697	10,951,000	286,117,697	417,506,379	703,624,076		131,388,652
1870	376,616,473	16,155,295	392,771,768	435,958,408	828,730,176		43,186,610
1871	428,398,908	14,421,270	442,820,178	520,223,684	963,043,862		77,403,606
1872	428,487,131	15,690,455	444,177,586	620,595,077	1,070,772,663		182,417,491
1873	505,033,439	17,446,483	522,479,922	642,136,210	1,164,616,132		119,656,268
1874	569,433,421	16,849,619	586,283,040	567,400,342	1,153,689,382	18,876,698	
1875	499,284,100	14,158,611	513,442,711	533,005,436	1,046,448,147		19,562,725
1876	525,582,247	14,802,424	540,384,671	460,741,190	1,001,125,861	79,043,481	
1877	589,670,224	12,801,996	602,472,220	451,323,126	1,053,798,346	151,152,094	
1878	680,709,268	14,156,498	694,865,766	437,051,532	1,131,917,298	257,814,234	
1879	698,340,790	12,098,651	710,439,441	445,777,775	1,156,217,216	204,661,666	
1880	823,946,353	11,692,305	835,638,658	667,954,746	1,503,593,404	167,683,912	
1881	883,925,947	18,451,399	902,377,346	642,664,628	1,545,041,974	259,712,718	
1882	733,239,732	17,302,525	750,542,257	724,639,574	1,475,181,831	25,902,683	
1883	804,223,632	19,615,770	823,839,402	723,180,914	1,547,020,316	100,658,488	
1884	724,964,362	15,548,757	740,513,099	667,607,693	1,408,211,302	72,815,916	
1885	726,682,946	15,506,809	742,189,755	577,527,329	1,319,717,084	164,662,426	

With here and there a year showing a sudden fall either in exports or imports, the general tendency, as shown by the table, is upward. It shows a great temporary increase of imports prior to periods of depression and a falling off in subsequent periods, but always with a reacting tendency; and, so far as steadiness is concerned, the commerce of the United States compares quite favorably with that of the United Kingdom and of France, as shown by the following table, by which the per cent. of increase since 1860 is seen to be for Great Britain 83, for France 80, and for the United States 105.

VALUE OF IMPORTS AND EXPORTS FOR THE UNITED KINGDOM, FRANCE, AND THE UNITED STATES, 1860-84.

Years. ^a	Imports and exports.		
	United Kingdom.	France.	United States.
1860	\$1,825,191,648	\$1,129,962,368	\$687,192,176
1861	1,835,242,420	1,118,438,496	508,864,375
1862	1,907,108,888	1,158,051,806	380,027,178
1863	2,169,598,984	1,816,446,648	447,300,262
1864	2,372,768,096	1,426,585,276	475,285,271
1865	2,384,117,140	1,482,121,774	404,774,883
1866	2,590,604,619	1,581,826,626	783,671,568
1867	2,438,046,743	1,550,466,900	690,267,237
1868	2,542,610,269	1,553,211,606	639,389,839
1869	2,591,290,882	1,537,727,718	703,624,076
1870	2,603,620,718	1,353,587,776	829,730,176
1871	2,960,903,111	1,407,669,190	963,043,862
1872	3,257,063,082	1,802,201,212	1,070,772,663
1873	3,320,374,685	1,829,550,942	1,164,616,132
1874	3,249,523,447	1,776,194,636	1,153,689,382
1875	3,190,248,321	1,604,264,608	1,046,448,147
1876	3,075,293,605	1,840,763,358	1,001,127,861
1877	3,147,485,288	1,740,396,662	1,053,798,346
1878	2,909,270,011	1,791,098,262	1,131,917,298
1879	2,977,204,200	1,917,186,874	1,156,217,216
1880	3,395,084,677	2,087,786,898	1,503,503,404
1881	3,377,863,266	2,086,784,399	1,545,041,974
1882	3,502,324,287	2,087,903,694	1,475,181,831
1883	3,563,877,370	2,033,885,544	1,547,020,316
1884	3,398,351,609	(b)	1,408,211,302

^a The commercial year of Great Britain and France is the calendar year. That of the United States ends June 30.

^b No data.

The decrease of imports or of exports, as shown by the tables given, is observed through prices. A true way of measuring the volume of business would be through the quantities, by units, for the different articles imported and exported. This, of course, would involve much space, and it is impossible to present such data; but, bearing in mind that there has been a great decline in prices, the values given in the foregoing tables indicate that there has not been any great decline in the volume of business itself. This decline in prices of the leading domestic commodities, as given by Mr. Switzler, Chief of the Bureau of Statistics of the Treasury Department, in his annual report for 1885, is exhibited in the following table, relating to the average currency prices in New York, from 1847 to 1884, inclusive:

AVERAGE CURRENCY PRICES OF COTTON AND COTTON GOODS IN NEW YORK, 1847-84.

Years.	Middling cotton per pound.	Price per yard.				
		Standard sheetings.	Standard drillings.	Bleached sheetings.	Standard prints.	64 by 64 print cloths.
1847	\$.0.1121	\$.0.0823	\$.0.0834	\$.0.1496	\$.0.1183	\$.0.0601
1848	.0803	.0678	.0683	.1421	.1017	.0435
1849	.0755	.0601	.0690	.1421	.0933	.0438
1850	.1234	.0787	.0707	.1496	.1062	.0519
1851	.1214	.0708	.0775	.1475	.1050	.0459
1852	.0950	.0896	.0770	.1450	.1050	.0470
1853	.1102	.0792	.0793	.1450	.1050	.0615
1854	.1097	.0796	.0784	.1500	.1056	.0581
1855	.1039	.0764	.0777	.1500	.0980	.0511
1856	.1030	.0750	.0810	.1500	.0950	.0536
1857	.1351	.0890	.0904	.1500	.1010	.0596
1858	.1223	.0825	.0870	.1500	.0950	.0560
1859	.1208	.0850	.0882	.1542	.0850	.0567
1860	.1100	.0873	.0892	.1550	.0950	.0544
1861	.1301	.1000	.0958	.1533	.0971	.0533
1862	.8129	.1855	.1894	.2100	.1440	.0981
1863	.6721	.3604	.3341	.3533	.2124	.1520
1864	1.0150	.5207	.5302	.4835	.3325	.2342
1865	.8338	.3504	.3733	.4958	.2900	.4024
1866	.4320	.2431	.2514	.4590	.2115	.1413
1867	.8159	.1828	.1879	.3521	.1658	.0912
1868	.2485	.1679	.1649	.2665	.1383	.0618
1869	.2901	.1619	.1649	.2479	.1400	.0830
1870	.2398	.1458	.1498	.2250	.1241	.0714
1871	.1695	.1300	.1364	.2083	.1162	.0741
1872	.2219	.1427	.1514	.2066	.1200	.0788
1873	.2014	.1331	.1418	.1941	.1187	.0660
1874	.1795	.1142	.1175	.1904	.0975	.0537
1875	.1546	.1041	.1112	.1512	.0871	.0533
1876	.1298	.0885	.0871	.1358	.0706	.0410
1877	.1182	.0846	.0846	.1246	.0677	.0438
1878	.1122	.0780	.0765	.1100	.0609	.0344
1879	.1084	.0797	.0757	.1162	.0625	.0393
1880	.1151	.0851	.0851	.1274	.0741	.041
1881	.1203	.0851	.....	.1274	.0700	.0395
1882	.1156	.0845	.....	.1295	.0650	.0376
1883	.1188	.0832	.....	.1293	.0600	.0360
1884	.1088	.0728	.....	.1046	.0600	.0336

The decline of prices in other matters is more accurately demonstrated in the following table relating to articles of domestic product, the export price in currency being given for the years indicated:

EXPORT PRICE IN CURRENCY OF DOMESTIC PRODUCTS, 1855-86.

Year ending June 30—	Indian corn per bushel.	Wheat per bushel.	Wheat flour per barrel.	Cotton per pound. ^a	Leather per pound.	Mineral oils, refined, per gallon.	Bacon, hams, per pound.	Lard per pound.	Pork, salted, per pound.	Beef, salted, per pound.	Butter per pound.	Cheese per pound.	Eggs per dozen.	Starch per pound.	Sugar, refined, per pound.	Tobacco, leaf, per pound.
1855	\$.0.746	\$1.853	\$.8.339	9.5	25.9	(b)	9.2	10.3	8.9	(b)	19.0	10.1	(b)	(b)	8.8	(b)
1856	.691	1.526	6.972	12.6	28.5	(b)	10.3	12.7	9.3	(b)	18.9	10.3	(b)	(b)	11.7	(b)
1857	.691	1.428	6.973	12.6	28.5	(b)	10.3	12.8	9.7	(b)	18.9	10.0	(b)	(b)	11.7	(b)
1858	.684	1.015	5.503	11.7	24.3	(b)	9.3	11.5	8.9	(b)	17.6	9.0	(b)	(b)	11.2	(b)
1859	.769	.949	5.943	11.8	24.3	(b)	10.5	11.5	8.1	(b)	16.4	9.1	(b)	(b)	9.5	(b)
1860	.726	.984	5.935	10.9	23.9	(b)	8.9	11.3	5.0	4.2	15.0	10.1	(b)	(b)	9.1	(b)
1861	.648	1.234	5.700	11.1	20.5	(b)	9.7	10.6	5.0	(b)	15.2	10.3	(b)	(b)	8.9	(b)
1862	.558	1.142	5.640	23.3	21.9	26.4	7.7	8.4	4.8	6.3	15.6	8.0	(b)	(b)	10.0	(b)
1863	.657	1.297	6.461	58.4	28.7	17.9	8.5	10.2	5.5	6.9	19.1	10.0	(b)	(b)	11.2	(b)
1864	.820	1.350	7.193	82.4	35.5	52.5	11.9	11.6	8.4	8.5	29.3	11.8	(b)	9.1	14.4	(b)
1865	1.310	1.950	10.414	76.4	40.7	74.3	22.9	20.5	10.3	9.0	33.8	22.0	(b)	9.8	20.1	(b)
1866	.850	1.410	8.427	42.7	29.9	54.2	16.7	19.9	15.9	14.7	33.3	16.6	51.1	9.6	16.4	15.4
1867	1.000	1.270	9.848	30.1	34.0	35.9	12.9	14.6	13.2	12.2	24.1	15.1	35.8	8.5	10.4	10.6
1868	1.180	1.910	10.059	19.2	24.3	29.4	12.6	14.6	11.4	11.9	28.1	13.7	29.9	8.4	14.2	11.1
1869	.970	1.390	7.731	25.0	(b)	35.6	15.4	17.8	14.1	8.9	36.5	16.1	(b)	8.6	13.5	11.3
1870	.925	1.289	6.112	23.5	28.5	30.5	15.7	16.6	13.2	7.3	23.3	15.5	39.6	8.2	12.6	11.3
1871	.759	1.316	6.594	14.9	25.3	23.7	11.4	13.2	11.0	8.7	21.6	13.8	28.5	6.6	13.2	9.3
1872	.696	1.473	7.141	19.3	23.7	24.9	8.6	10.1	7.9	7.0	19.4	11.7	20.4	5.0	12.6	10.3
1873	.617	1.312	7.565	18.8	25.3	23.5	8.8	9.2	7.8	7.7	21.1	13.0	26.5	5.3	11.6	10.0

^a Including Sea Island.^b No data.

EXPORT PRICE IN CURRENCY OF DOMESTIC PRODUCTS, 1855-85—Concluded.

Year ending June 30—	Indian corn per bushel.	Wheat per bushel.	Wheat flour per bar- rel.	Cotton per pound. <i>s</i>	Leather per pound.	Mineral oils, refined, per gallon.	Bacon, hams, per pound.	Lard per pound.	Pork, salted, per pound.	Beef, salted, per pound.	Butter per pound.	Cheese per pound.	Eggs per dozen.	Starch per pound.	Sugar, refined, per pound.	Tobacco, leaf, per pound.
1874	\$0.719	\$1.428	\$7.146	Ots. 15.4	Ots. 25.2	Ots. 17.3	Ots. 9.6	Ots. 9.4	Ots. 8.2	Ots. 8.2	Ots. 25.0	Ots. 13.1	Ots. 22.0	Ots. 0.6	Ots. 10.4	Ots. 9.6
1875	.847	1.124	6.001	15.0	26.0	14.1	11.4	13.7	10.1	8.7	23.7	13.5	25.6	5.9	10.8	11.3
1876	.672	1.242	6.208	12.9	26.3	14.4	12.1	13.3	10.6	8.7	23.9	12.6	28.0	5.4	10.7	10.4
1877	.587	1.169	6.479	11.8	23.9	21.1	10.8	10.9	9.2	7.5	20.6	11.8	25.9	5.2	11.0	10.2
1878	.562	1.338	6.358	11.1	21.8	14.4	8.7	8.8	6.8	7.7	18.0	11.4	15.8	4.7	10.2	8.7
1879	.471	1.068	5.252	9.9	20.4	10.9	7.0	7.0	5.7	6.3	14.2	8.9	15.5	4.2	8.5	7.8
1880	.543	1.243	5.878	11.5	23.3	8.7	6.7	7.4	6.2	6.4	17.1	8.5	16.5	4.3	9.0	7.6
1881	.552	1.113	5.969	11.2	22.6	10.3	8.2	9.3	7.7	6.5	19.8	11.1	17.2	4.7	9.2	8.3
1882	.668	1.185	6.149	11.4	20.9	9.1	10.0	11.6	9.0	8.5	19.4	11.0	19.3	4.8	9.7	8.5
1883	.684	1.127	5.956	10.8	23.6	8.8	11.2	11.8	10.0	9.0	18.5	11.2	20.9	4.0	9.2	8.3
1884	.611	1.066	5.588	10.5	20.6	9.2	10.2	9.5	7.9	7.6	18.2	10.3	21.2	4.5	7.1	9.1
1885	.540	.862	4.897	10.6	19.8	8.7	9.4	7.9	6.3	7.5	16.8	9.3	21.5	4.0	6.4	9.0

a Including Sea Island.

The statistics of savings banks offer indicative but not conclusive evidence in the same direction. These statistics are those reported from some fifteen states and territories by the Comptroller of the Currency. They are not full and complete, yet as far as they go they show the constant progress of deposits and the constant increase in the number of depositors:

EXHIBIT OF SAVINGS BANKS IN THE UNITED STATES, 1873-85.

Years.	Number of de- positors.	Amount of de- posits.	Average to each deposi- tor.
1873-74	2,188,619	\$759,954,175	\$347 23
1874-75	2,296,182	849,631,633	354 56
1875-76	2,414,952	892,735,553	359 69
1876-77	2,395,314	896,218,206	381 63
1877-78	2,400,785	876,974,425	366 50
1878-79	2,208,707	802,490,208	353 72
1879-80	2,335,682	819,106,973	350 71
1880-81	2,528,749	891,981,142	352 73
1881-82	2,710,354	967,977,081	356 70
1882-83	2,876,438	1,014,556,787	356 29
1883-84	3,015,151	1,073,94,955	355 96
1884-85	3,071,495	1,093,172,147	356 56

The foregoing tables are sufficient to indicate two things: That while, as shown, the extent of the existing industrial depression involves a crippling of the wage-receivers of the country, and a consequent crippling of the consuming power of the people, the volume of business has been fairly well preserved—at least not reduced to any such extent as is indicated by the crippling of the consuming power—and that prices have constantly fallen. Along with these two features there has been a constant diminishing of profits until many industries have been conducted with little or no margin to those managing them, and a great lowering of wages in general. Some industries, of course, have been badly crippled temporarily, experiencing a few months of severe stagnation until a temporary removal of the glut in the market brought them up again; but, on the whole, the volume of business of the country during the depressed period has been fairly satisfactory.

With these statements indicating the extent of the depression and the influence it has had upon the business of the country, it is well to consider as fully as possible the causes which are alleged as having produced the depression.

Alleged Causes of the Present Depression.—In searching, whether in Europe or America, for the causes of the industrial disease which has affected the manufacturing world since 1882, it is interesting to note how fully trade, profession, or calling influences opinions given. Bankers and merchants are likely to give as the absolute cause of depressions some financial or commercial reasons; clergymen and moralists largely incline to assert that social and moral influences, united with providential causes, produce the industrial difficulties which afflict nations; manufacturers incline to give industrial conditions, labor legislation, labor agitation, the demands of the workingmen, over-production, and various features of the industrial system, as causes; while the workingmen attribute industrial diseases to combinations of capital, long hours of labor, low wages, machinery, and kindred causes. The politician feels that changes in administration, the non-enactment of laws that he desires, tariffs or the absence of tariffs, are the chief influencing causes of industrial disturbances. The fact that, as a rule, one's opinion can be foreseen by knowing his calling in life, vitiates to a large extent the value of causes alleged; yet when all classes unite upon a few prominent reasons, and those reasons can be illustrated by facts, it becomes possible to consider the alleged causes of industrial depressions with a fair degree of intelligence and with conclusions that have sufficient soundness in them to indicate partial remedial agencies. The agents of the Bureau, in searching for information as to the origin, course, and progress of industrial depressions, gathered the suggestions of those men most experienced in the chief lines of business of the countries involved in this investigation. These alleged causes are classified and shown in the following alphabetical list:

CAUSES OF DEPRESSIONS AS GATHERED BY AGENTS OF THE BUREAU.

Acts that startle money-lenders, causing them to withdraw funds and refuse loans.	Capital—
Administration—	absorption of, by corporations.
change of.	aggressiveness of.
Agricultural products—	attitude of, <i>versus</i> labor.
low prices for.	concentration of, in banking and discounting centres, instead of geographical ones.
Apprentice system—	concentration of small interests in larger ones.
abolition of the.	dead, invested in railroads.
Banks—	farming on borrowed.
failure of.	presence of foreign.
fear of adverse legislation relative to.	relation between, and labor lost.
too liberal lending by.	syndicates and pools formed by capitalists and manufacturers to control labor.
Banking system—	timidity of.
erroneous.	
Business—	
lack of comprehension of details of.	

- Capital—Concluded.
 - too much, invested in manufactures.
 - too much, invested in railroads.
- Caste—
 - absence of.
- Children—
 - employment of.
- Competition.
- Confidence—
 - want of.
- Congress—
 - unfavorable and reckless legislation in.
- Corners.
- Corporations—
 - creation of large.
 - monopoly of.
 - natural resources of the country in the hands of.
- Credits—
 - extended commercial.
- Credit system.
- Crops—
 - small.
- Currency—
 - agitation of the silver question.
 - coinage of the silver dollar.
 - contraction of the.
 - decrease of gold.
 - dishonest.
 - distrust of the silver dollar.
 - faulty financial system.
 - inflation of the.
 - not increased in proportion to the uses.
 - over-issue of paper money.
 - scarcity of.
 - uncertain value of the silver dollar.
 - uncertainty of the future monetary standard.
 - unequal value of gold and silver.
 - want of, to pay the debts of the country when due.
- Demand—
 - decrease of home.
- Democratic party in power.
- Depressions are mental diseases.
- Economy—
 - enforced, of the laboring people.
 - increased public and private.
 - want of, by the working people.
- Emigration—
 - lack of, to the public lands.
- Education—
 - too much, and indiscriminate.
- Elections—
 - presidential.
- Enterprises—
 - investments in unproductive.
- Goods—
 - inattention to quality manufactured.
 - under-valuation of, at custom houses.
- Government—
 - want of confidence in.
- Idleness—
 - enforced.
- Immigration—
 - too much, of the poorer class.
- Immorality.
- Importation of what should be manufactured at home.
- Industries—
 - establishment of, before required.
- Industrial system—
 - erroneous.
- Industrial plants—
 - enlargement of.
- Interest—
 - high rates of, charged the producing classes.
- Labor—
 - attitude of, *versus* capital.
 - concentration of, in cities.
 - foreign contract.
 - inadequate means for distributing the proceeds of.
 - prison.
 - surplus of.
 - unequal distribution of wages among different classes of.
- Land—
 - cultivating too many acres of, with too little labor.
- Laws—
 - natural.
 - labor.
- Living—
 - extravagant.
 - false manner of.
 - variation in the cost of.
- Machinery—
 - labor-saving.
- Margins—
 - dealing in.
- Markets—
 - manipulation of, by speculators.
 - want of foreign.
 - want of, for home products.

Manufactures— efforts of manufacturers to supply the inordinate fancy and demand of the public for splendid articles. increase of.	Steel— introduction of Bessemer.
Monopoly— land.	Strikes.
Over-production.	Tariff— abuse of system of, among importers.
Party policy— exaggerating the effects of.	discussions of the.
Paupers— importation of.	discussions on the, in Congress.
Political campaigns, reaction after.	excessive.
Political distrust.	fear of Congressional action relative to the.
Prices— inflation of.	high, protective.
reduction of, to cost of production.	legislation on the.
Production— uneven.	low rate of.
variation in the cost of.	mode of collecting duties on imported machinery.
want of adjustment between, and con- sumption.	protective policy of the.
Prosperity— reaction from.	reduction of the.
Railroads— decreased building of.	revisions of the.
overbuilding of.	unequal duties of the.
too much capital invested in.	unjust.
Rents— higher.	want of proper construction of the.
Republican party— extravagance of.	want of proper protection.
Securities— selling valueless.	Taxation— enormous.
Speculation— engaging in, rather than productive industries.	unequal.
	Tonnage duties— manner of determining.
	Trading— the overdoing of.
	Traffic— liquor.
	Under-consumption.
	Wages— reduction of.
	Wage system— failure of the.
	War.
	Wealth— consolidation of.

The foregoing list, under analysis, is easily classified into three great divisions: First, leading or direct causes, such as over-production, cost of production, influence of machinery, crippling of the consumptive power, etc.; second, contributory causes, such as transportation, distribution, exchanges, commercial systems, etc.; and third, remote, indirect, and trivial causes. Such classification would relate to the influence of alleged causes or of their importance relative to their results. A second classification might be made, involving simply character of causes, as: First, providential, involving those causes which come from natural phenomena—floods, disasters, earthquakes, etc.; second, social and moral causes, such as speculative ideas, lack of integrity, lack of confidence in government, etc.; third, political, such as political changes, discussion of commercial systems, legislation, etc.; fourth, commercial and mercantile, such as railroad-building, improvements, systems of

taxation, traffic, etc. ; fifth, financial, such as banking systems, credit, currency, interest, etc. ; sixth, industrial and mechanical, involving over-production, displacement of labor by machinery, wages, variation in wages, cost of production, hours of labor, etc. The long list of causes given above will readily shape itself in any one's mind in accordance with these two classifications. It is not necessary that the power and influence of what are denominated providential causes be discussed, nor is it necessary that those which might be classed under remote, indirect, and trivial should be allowed to take up any time or space, but to those which are leading and to some of those which are contributory, and which occupy the largest place in men's minds, and especially to those causes regarding the influence of which the Bureau has been able to collect any illustrating facts, not only time but space should be given.

Falling Prices.—One of the chief positive causes, as alleged, which produce depressed periods is a fall in prices. It matters not what causes the fall. It may arise from a lack of demand or from too great a supply, or it may be the result of a general tendency or of improved methods of production ; but whatever the cause, the first influence of a fall in prices is an apprehension of loss.

Dr. Robert Giffen (a), chief statistician of the British Board of Trade, in a very able discussion of the influence of low prices upon depressions, comes to the conclusion that it is clearly unnecessary to assign any other cause for the gloom of the last few years, and he cites that just before the beginning of the existing depression, the first symptoms of which were discernable in England about the end of 1882 or the beginning of 1883, there had been a period of prosperity and rising prices, though for a comparatively short time. The period of depression which had lasted from 1873 to 1879 suddenly came to an end ; there was a general boom in the produce markets, and a recovery of tone in business, which continued for two or three years ; but at the end of 1882 prices began to fall, production and foreign trade fell off, and since then there has been in Great Britain a steady outcry from the market-place about depression, which has been echoed and re-echoed in political circles, and, as Dr. Giffen says, in a somewhat "unintelligent manner, with more than usual emphasis laid on the assumption, so common at such times, that depression is itself an uncommon and bewildering phenomenon, instead of being the most natural thing in the world, and that the present depression is the worst on record and the beginning of the end of British industrial greatness." Dr. Giffen's language might be used as American entirely and not be out of place ; but in quoting so eminent an authority, who backs up his statements with so many facts, it is not necessary to quote the facts themselves, so far as the cause alleged is concerned. Along with low prices there must be, of course, reduced wages, low interest, and small profits. Low prices work to the

a "Trade Depression and Low Prices," in the *Contemporary Review*, June, 1885.

great advantage of those living on invested funds at permanent rates of interest, because one dollar in a depressed period to such parties has a purchasing power enhanced to the degree of the low prices. It is during such periods that fixed capital is tempted to become active. Surrendered estates are bought at low figures, properties are secured at bargains, and while the parties securing the great bargains are apt to utter the loudest complaints, and thereby keep up the apprehensive features of the depression, they contribute toward the restoration of business activity; so, while low prices may be regarded as one of the chief and one of the leading causes, if not the leading cause, of industrial depressions, the influence of the cause is sure to react upon itself and bring about an activity through example, the effect of which is felt in various directions.

Machinery and Over-production.—Machinery—and the word is used in its largest and most comprehensive sense—has been most potent in bringing the mechanically-producing nations of the world to their present industrial position, which position constitutes an epoch in their industrial development. The rapid development and adaptation of machinery in all the activities belonging to production and transportation have brought what is commonly called over-production, so that machinery and over-production are two causes so closely allied that it is quite difficult to discuss the one without taking the other into consideration. That labor-saving machinery, so called, but which more properly should be called labor-making or labor-assisting machinery, displaces labor temporarily cannot successfully be denied. All men of sound minds admit the permanent good effects of machinery; but the permanent good effects of it do not prevent the temporary displacement of labor, which displacement, so far as the labor displaced is concerned, assists in crippling the consuming power of the community. A few illustrations relative to the displacement of labor by the introduction of machinery, if of no value in themselves, are of historic value in preserving the growth of industrial systems and the changes which come with them, and are therefore given in this chapter. It has been very difficult to gather positive information illustrating points so thoroughly apparent; yet the Bureau has been able, and from original sources largely, to bring together a mass of facts relating to the temporary displacement of labor and to conditions of industry and of society which would exist without the presence of power machinery. These illustrations show positively the influence of inventions in bringing about industrial depression.

In the manufacture of agricultural implements new machinery during the past fifteen or twenty years has, in the opinion of some of the best manufacturers of such implements, displaced fully 50 per cent. of the muscular labor formerly employed; as, for instance, hammers and dies have done away with the most particular labor on a plow. The

proprietors of an extensive establishment in one of the Western States has furnished the Bureau with the following table:

DISPLACEMENT OF MUSCULAR LABOR BY MACHINERY IN THE MANUFACTURE OF AGRICULTURAL IMPLEMENTS.

Department.	Number of employées—			Proportion.
	Required with machinery.	That would be required without machinery.	Displaced by machinery.	
Engine.....	60	540	480	1 to 9
Boiler.....	70	210	140	1 to 3
Foundry.....	110	165	55	1 to 1½
Wood working.....	60	300	240	1 to 5
Setting up.....	50	50	.....	1 to 1
Blacksmiths.....	45	90	45	1 to 2
Machinists.....	45	405	360	1 to 9
Erecting room.....	35	70	35	1 to 2
Paint shop.....	30	30	.....	1 to 1
Teamsters.....	10	20	10	1 to 2
Pattern making.....	5	40	35	1 to 8
Draft room.....	15	150	135	1 to 10
Tool room.....	10	10	.....	1 to 1
Shipping and stock.....	30	30	.....	1 to 1
Lumber.....	10	10	.....	1 to 1
Bolt and nut.....	5	5	.....	1 to 1
Belt.....	7	14	7	1 to 2
Watch.....	3	6	3	1 to 2
	600	2,145	1,545	1 to 3.57

By this table it is shown that in the establishment cited 600 employées are doing the work which under former conditions would have required 2,145 employées, a displacement of 1,545.

In the manufacture of small-arms, where 1 man, by manual labor, was formerly able to "turn" and "fit" 1 stock for a musket in 1 day of 10 hours, 3 men now, by a division of labor and the use of power machinery, will turn out and fit from 125 to 150 stocks in 10 hours. By this it is seen that 1 man individually turns out and fits the equivalent of 42 to 50 stocks in 10 hours as against 1 stock in the same length of time by manual labor, a displacement of 44 to 49 men in this one operation.

In brick-making improved devices displace 10 per cent. of the labor, while in manufacturing fire-brick 40 per cent. has been displaced, and yet in some concerns, in manufacturing various kinds of bricks, no displacement has occurred.

The manufacture of boots and shoes offers some very wonderful facts in this connection. In one large and long-established manufactory in one of the Eastern states the proprietors testify that it would require 500 persons working by hand processes to make as many women's boots and shoes as 100 persons now make with the aid of machinery, a displacement of 80 per cent. In another class of the same industry the number of men required to produce a given quantity of boots and shoes has been reduced one-half. In another locality, and on another quality of boots, being entirely for women's wear, where formerly a first-class work-

man could turn out 6 pairs in one week, he will now turn out 18 pairs. A well-known firm, engaged in manufacturing boots and shoes in the West states that in the grade of goods manufactured by it, it would take 120 persons working by hand to produce the amount of work done in its factory by 60 employes, and the hand-work would not compare in workmanship and appearance, as expressed by the concern, by 50 per cent. Goodyear's sewing machine for turned shoes, with 1 man, will sew 250 pairs in 1 day. It would require 8 men working by hand to sew the same number. By the use of King's heel-shaver or trimmer 1 man will trim 300 pairs of shoes a day, where it formerly took 3 men to do the same. One man, with the McKay machine, can handle 300 pairs of shoes per day, while, without the machine, he could handle but 5 pairs in the same time. In nailing on heels, by the use of machinery, 1 man and a boy can heel 300 pairs of shoes per day. It would require 5 men to do this by hand. In finishing the bottoms of shoes, 1 man with a sand-papering machine can handle 300 pairs, while it would require 4 men to do the same by hand. A large Philadelphia firm, engaged in the manufacture of boys' and children's shoes, states—and the foreman of the establishment corroborates the evidence—that the introduction of new machinery within the past thirty years has displaced about six times the amount of hand labor required, and that the cost of the product has been reduced one-half. On another grade of goods, manufactured in Maine, the facts collected by the agents of the Bureau show that 1 man can now do the work which twenty years ago required 10 men.

The broom industry has felt the influence of machinery, the broom sewing machine facilitating the work to such extent that each machine displaces 3 men. One large broom-manufacturing concern, in 1879, employed 17 skilled men to manufacture 500 dozen brooms per week. In 1885, with 9 men and the use of machinery, the firm turned out 1,200 dozen brooms weekly. Thus, while the force is reduced in this one establishment nearly one-half, the quantity of brooms sewed is much more than doubled.

In the construction of carriages and wagons, a foreman of fifty years' experience testifies that the length of time it took a given number of skilled workmen, working entirely by hand, to produce a carriage of a certain style and quality was equal to 35 days of one man's labor, while now 1 man produces substantially the same style of carriage in 12 days.

In the manufacture of carpets, some of the leading manufacturers in the country, and men of the largest experience, consider that the improvement in machinery in the past thirty years, taking weaving, spinning, and all the processes together, have displaced from ten to twenty times the number of persons now necessary. In spinning alone it would take by the old methods from seventy-five to one hundred times the number of operatives now employed to turn out the same amount of work, while in weaving there would be required at least ten times the present number. A carpet-measuring machine has been invented which

brushes and measures the product at the same time. By the use of this device 1 operator will accomplish what formerly required 15 men.

In the manufacture of clothing, where all cutting was formerly done by hand, much of it is now done by the use of dies. In cutting out hats and caps, a man working improved cutters is able to cut out a great many thicknesses at once, and he does six times the amount of work with such a machine as could formerly be done by 1 man in the old way. The same is true to a certain extent in cutting out garments. On the whole, in an establishment for the manufacture of hats of a medium grade, 1 man does the work now of 3 formerly, and the product is far superior to that produced in the olden times. In the manufacture of some kinds of hats, especially soft and stiff hats, experienced men consider that there has been a displacement in the proportion of 9 to 1.

The cotton goods industry offers, perhaps, as striking an illustration as any of the apparent displacement of labor, a Delaware house considering that the displacement has been 17 per cent. outside of motive power. By a hand-loom a weaver used to weave from 60 to 80 picks per minute in weaving a cloth of good quality, with 20 threads of twist to each one-quarter square inch. A power-loom now weaves 180 picks per minute of the same kind of cloth. Even in power machinery, a weaver formerly tended but 1 loom. Now 1 weaver minds all the way from 2 to 10 looms, according to the grade of goods. In a large establishment in New Hampshire, improved machinery, even within ten years, has reduced muscular labor 50 per cent. in the production of the same quality of goods. In another line of goods manufactured in the same state machinery has displaced labor to the amount of one-third the number of operatives formerly required. In the days of the single-spindle hand-wheel, 1 spinner, working 56 hours, could spin 5 hanks of number 32 twist. In England, at the present time, with 1 pair of self-acting mules, having 2,124 spindles, 1 spinner, having the assistance of 2 boys, will produce 55,098 hanks of number 32 twist in the same time, when the mules are running at the moderate rate of 3 stretches in 45½ seconds. It is quite generally agreed that there has been a displacement, taking all processes of cotton manufacture into consideration, in the proportion of 3 to 1. The average number of spindles per operative in the cotton mills of this country in 1831 was 25.2. It is now about 72, an increase of 185 per cent. Along with this increase of the number of spindles per operative there has been an increase of product per operative of 145 per cent., so far as spinning is concerned. In the olden time in this country a fair adult hand-loom weaver wove from 42 to 48 yards of common shirting per week. A weaver, tending 6 power looms in a cotton factory of to-day, would produce 1,500 yards a week.

In the manufacture of flour there has been a displacement of nearly three-fourths of the manual labor necessary to produce the same product.

In the manufacture of furniture from one-half to three-fourths only of the old number of persons is now required.

In the glass industry no particular improvements have been made by which labor has been displaced to any material extent. What improvements have been introduced increase the product in some features slightly, and have improved the quality. In the manufacture of glass jars and some kinds of bottles the introduction of machinery has, however, caused a displacement in the proportion of 6 to 1, and in polishing plate glass there has been a large displacement, and also in the grinding department of plate glass manufacture.

In leather-making, in some grades of morocco, there has been an apparent displacement of perhaps 5 per cent., and in the manufacture of patent leather nearly 50 per cent.

In the lumber business, 12 co-laborers with a Bucker machine, will dress 12,000 staves. The same number of men, by hand processes, would dress but 2,500. In many departments of lumber manufacturing there has been much displacement of labor.

A saving of about 25 per cent. is made in the manufacture of machines and machinery over the hand methods. By the introduction of screw-cutting and boring machines in brass-finishing shops, a given number of hands will secure 40 per cent. greater production. A pneumatic moulding machine has reduced the number of employes for a given quantity of product.

In the production of metals and metallic goods, long-established firms testify that machinery has decreased manual labor $33\frac{1}{3}$ per cent. A great saving has been made in the production of pig-iron during the last half century, Pittsburgh producers placing the saving at 20 per cent. over the simple country furnace. By the use of improvements and inventions during the past ten or fifteen years in hammers used in the manufacture of steel, there has been a displacement of employes in the proportion of nearly 10 to 1. A first-class journeyman can make from 600 to 1,000 two-pound tin cans per day by hand process. By the use of machinery he can make from 2,000 to 2,500 per day. In making lard pails, a machine is in use by which 1 man, with 1 boy as tender, can produce as much as was formerly produced by 10 skilled men. In 1876, certain kinds of tinware were made by the old processes by the gross, a skilled workman making a gross in about one and a half days. By the use of improved machinery the workman can now turn out five times as much product in the same time. In the manufacture of bread-boxes, what was done in 1876 by 13 men and women working together, is now accomplished by 3 men.

One boy, running a planing-machine in turning wood-work for musical instruments and materials, does the work of 25 men. In the manufacture of sounding-boards, 15 men can turn out 5,000 boards per month, or 278 per day, where a good man formerly could make but 4 in a day by the old method.

A mining company in Missouri have 100 miners, getting out 200 tons of coal per day. They have 2 machines, which, with 14 men, mine 40 tons per day. If 100 men without machines get out 200 tons per day, 1 man will get out 2 tons per day, or 52 tons per month. If 14 men with 2 machines get out 40 tons per day, 1 man with machine will get out $2\frac{2}{7}$ tons per day, or $74\frac{2}{7}$ tons per month. Therefore, 1 man with a machine gets out $22\frac{2}{7}$ tons per month more than the man without a machine. This, worked out fully, shows that the machine displaces 6 men, on the basis of the employment of 100 miners without machines and 14 miners with machines. In a phosphate mine in South Carolina 10 men accomplish with machinery what 100 men handle without in the same time. In the Hocking Valley mining coal by machines is experimental at present. In one place, however, mining machines, employing about 160 men, produce in a month's work about the same amount of coal that 500 men will produce by hand, working the same number of days.

The oil industry in Pennsylvania has been affected a good deal by inventions. In the early days of petroleum every barrel of the liquid had to be hauled from the wells to the railroads, sometimes a distance of ten or fifteen miles. The railroads then carried it to distant parts of the country or to the seaboard to be refined and shipped abroad, the cost of all this transportation being from \$1 to \$3 per barrel. All this work is now done by the National Transit Company, controlled by the Standard Oil Company. When a well is completed, the pipe line's agent connects the well in a few minutes with the main line's tanks. The producer or the owner of the well pays nothing for having his oil transported through the pipe lines, but pays 50 cents per day storage for every barrel he has in the tanks of the company, and the consumer or refiner pays 20 cents per barrel upon the receipt of the oil for transportation, so far as Pittsburgh and vicinity are concerned, while the receiver for New York and distant places pays something more. Some of the producing territory is quite remote, and 10 barrels per day would be a very liberal average to allow for a team of horses to transport to the railroads. On this basis the pipe lines displace 5,700 teams of horses and double that number of men in handling the oil, the production of the country being placed at 57,000 barrels per day.

It is very difficult to get at the exact displacement of labor in the manufacture of paper, but a machine now used for drying and cutting, run by 4 men and 6 girls, will do the work formerly done by 100 persons, and do it very much better. This is the testimony of one of the leading houses, while another states that the apparent displacement by machinery is illustrated by the fact that 6 men can now produce as much per day on a given sample as 100 men could produce in 1800 of an approximate grade. A well-known firm in New Hampshire states that by the aid of machinery it produces three times the quantity, with the same number of employes, that it did twenty years ago. In the manufacture of wall-paper the best evidence puts the displacement in the proportion of 100 to 1.

In pottery, in South Carolina, the product is ten times greater by machine processes than by muscular labor; while in the better grades of pottery, as produced in New Jersey, there has been little or no displacement.

In the manufacture of railroad supplies there has been a displacement of 50 per cent. of the labor formerly required, while in some features of the manufacture of cars there has been a displacement of three times the labor now employed. This is the testimony of several well-known firms.

There has been a displacement of 50 per cent. in the manufacture of rubber boots and shoes.

In the manufacture of saws, experienced men consider that there has been a displacement of 3 men out of 5. Ten years ago grinding was done by hand. Now it is done by machinery.

In silk manufacture, 40 per cent. represents the displacement, according to some authorities, in the general manufacture, while in weaving there has been a displacement of 95 per cent., and in winding of 90 per cent.

A large soap-manufacturing concern very carefully estimates the displacement of labor in its works at 50 per cent.

Tobacco manufacturing now requires in Illinois but one-eighth the former force of laborers to produce a given quantity. There has been a great displacement of labor in the manufacture of cigars, but the exact ratio of displacement has not been ascertained.

In making trunks there has been a displacement of, perhaps, 5 per cent.

In building vessels an approximate idea of the relative labor displacement is given as 4 or 5 to 1—that is, four or five times the amount of labor can be performed to-day by the use of machinery in a given time that could be done under old hand methods.

In making wine in California a crushing machine has been introduced with which 1 man can crush and stem 80 tons of grapes in a day, this representing an amount of work formerly requiring 8 men. It would require 4 hand-crushers, with 2 men at each, to accomplish this amount of work.

In wooden goods, 1 man with a machine does the work formerly done by 3 men on hand lathes.

In woollen goods, in the carding department modern machinery has reduced muscular labor 33 per cent.; in the spinning department, 50 per cent., and in the weaving department, 25 per cent. This is during the past few years only, while generally improved machinery in spinning and weaving departments together has displaced 20 times the hand labor formerly employed, and in other departments from 5 to 10 times. In some kinds of spinning 100 to 1 represents the displacement, nearly all concerns agreeing that the displacement during the last ten to twenty years has been 25 per cent. An establishment in Indiana has worked

out the displacement of muscular labor by machinery very carefully and in the following ratio: In weaving woollens, 1 machine equals 6 persons; in spinning, 1 machine equals 20 persons; in twisting, 1 machine equals 15 persons; in picking, 1 machine equals 40 persons, and in carding, 1 set of patent carders will turn out more in 1 day than the old carders would in 1 week. Other houses engaged in the manufacture of the same kind of goods give the same figures.

Very many other features of manufacturing might be cited were the facts necessary for the illustration of this topic. In box making, in all the processes of the manufacture of books and newspapers, in jewellery, and in fact in nearly every department of production, statements as positive and emphatic as those made for the industries examined might be secured. There are one or two general illustrations, however, of the most striking nature, which may be considered the epitome of the influence of steam and of power machinery.

The mechanical industries of the United States are carried on by steam and water power representing, in round numbers, 3,500,000 horse-power,^(a) each horse-power equaling the muscular labor of 6 men; that is to say, if men were employed to furnish the power to carry on the industries of this country, it would require 21,000,000 men, and 21,000,000 men represent a population, according to the ratio of the census of 1880, of 105,000,000. The industries are now carried on by 4,000,000 persons, in round numbers, representing a population of 20,000,000 only. There are in the United States 28,600 locomotives.^b To do the work of these locomotives upon the existing common roads of the country and the equivalent of that which has been done upon the railroads the past year would require, in round numbers, 54,000,000 horses and 13,500,000 men. The work is now done, so far as men are concerned, by 250,000, representing a population of 1,250,000, while the population required for the number of men necessary to do the work with horses would be 67,500,000. To do the work, then, now accomplished by power and power machinery in our mechanical industries and upon our railroads would require men representing a population of 172,500,000, in addition to the present population of the country of 55,000,000, or a total population, with hand processes and with horse-power, of 227,500,000, which population would be obliged to subsist on present means. In an economic view the cost to the country would be enormous. The present cost of operating the railroads of the country with steam-power is, in round numbers, \$502,600,000 per annum; but to carry on the same amount of work with men and horses would cost

^a United States Census, 1880.

^b These calculations as to the horse and man power necessary to perform the work of the railroads of the country are based upon a very careful estimate from trustworthy data made by Hon. Edward Appleton, a well-known civil engineer, late of the Massachusetts Board of Railroad Commissioners. Mr. Appleton's calculations have been substantially corroborated by others through independent estimates. His basis has simply been projected to cover the United States.

the country \$11,308,500,000. These illustrations, of course, show the extreme straits to which a country would be brought if it undertook to perform its work in the old way. The figures are only interesting because a condition represented by them is utterly impossible. They are to a certain extent valuable to show the enormous benefits gained by the people at large through the application of improved motive power. They illustrate, too, the extreme view of the displacement of labor, which, as already remarked, has been positive, and, it may well be said, to some extent permanent. Certainly, to the men individually involved, the displacement has been severe indeed. It is not necessary to show that all the effects of the introduction of power machinery have been to raise the standard of life wherever the introduction has taken place. It is true that in those countries where machinery has been developed to the highest the greatest number of work people are engaged, and that in those countries where machinery has been developed to little or no purpose poverty reigns, ignorance is the prevailing condition, and civilization consequently far in the rear. These statements are simply facts which common observation teaches. They could be easily illustrated by statistics.

The people at large, and especially those who work for wages, have experienced three great elements of progress along with the establishment of the factory system. In wages and in product the position is well illustrated in the cotton industry. The ratio of cost per pound for labor of common cotton cloth for the years 1828 and 1880 was as 6.77 to 3.31, wages for the same dates being as 2.62 to 4.84; the average consumption of cotton, which indicates the standard of life as well as any one item, was per capita of total population for the year 1831, 5.90 pounds, while in 1880 the consumption rose to 13.91 pounds, this being exclusive of exports. In Great Britain in 1883 the consumption, exclusive of exports, was 6.62 pounds per capita, and in 1880, 7.75 pounds. Working time has been decreased on an average 12 per cent., while luxuries have become necessities, and, to a very large extent, placed within the reach of people of small means. All these points are too familiar to require restatement. They are simply used as illustrative; and yet, if the question should be asked, has the wage-worker received his equitable share of the benefits derived from the introduction of machinery, the answer must be no. In the struggle for industrial supremacy in the great countries devoted to mechanical production it probably has been impossible for him to share equitably in such benefits. That he has shared greatly as a consumer is true. Much of the saving in production through the apparent and temporary displacement of labor has been applied in raising the quality and perfecting the style of the products. His greatest benefit has come through his being a consumer. In very many instances the adult male has been obliged to work at a reduced wage, because, under improved machinery,

women and children could perform his work, but the net earnings of his family stand at a higher figure than of old. It is also true that while labor has been displaced apparently in many directions and in many industries, machinery has brought new occupations, especially to women. In the introduction of the telephone, errand boys to some extent were displaced from their regular work, but the vast army necessary to carry on the telephone system is much larger than any possible displacement. This is true in so many directions that this one illustration suffices. The apparent evils resulting from the introduction of machinery and the consequent subdivision of labor have to a large extent, of course, been offset by advantages gained; but it must stand as a positive statement, which cannot successfully be controverted, that this wonderful introduction and extension of power machinery is one of the prime causes, if not the prime cause, of the novel industrial condition in which the manufacturing nations find themselves.

The direct results, so far as the present period is concerned, of this wonderful and rapid extension of power machinery are, for the countries involved, over-production, or, to be more correct, bad or injudicious production; that is, that condition of production of things the value of which depends upon immediate consumption, or consumption by that portion of the population of the world already requiring the goods produced. If England, the United States, France, Belgium, and Germany unitedly produce more cotton goods than can be sold to their regular customers or in the world among people that use cotton goods, over-production exists, and it does not matter that the millions of human beings who do not consume and who do not desire cotton goods are unsupplied. So far as the factories and the operatives of the countries concerned are to be taken into consideration there does exist a positive and emphatic over-production, and this over-production could not exist without the introduction of power machinery at a rate greater than the consuming power of the nations involved and of those depending upon them demand; in other words, the over-production of power machinery logically results in the over-production of goods made with the aid of such machinery, and this represents the condition of those countries depending largely upon mechanical industries for their prosperity. Crippled consuming power, ordinarily known as under-consumption, may result from over-production, producing lower prices, or from other causes not connected with production in the ordinary sense. Some of these features are considered separately.

An influential cause in producing the condition of things recited as to the abnormal increase of machinery and the development of industrial enterprises has been the facility with which stock companies could be organized. In fact, the modern system of carrying on great works by stock companies has done much toward producing in all countries the bad industrial conditions under which the present generation is la-

boring. Formerly individual capital and individual enterprise constituted the moving power back of industrial development, and only men of considerable means, or two or three such men under copartnership arrangement, could undertake any very great enterprise, such as the building of great factories, the opening of mines, and undertakings in other directions; but now, under the modern system, when old partnership houses and family proprietors are adopting the joint-stock company basis for action, and many men of small means can contribute to the common stock of a great company, the inducement to push undertakings becomes speculative to a large extent. The depositors in savings banks, where such institutions exist, become indirectly associated with the very concerns they often condemn, and depend for their dividends on their deposits upon the welfare of such corporations. Legislatures have in very many, if not all, of the States of the Union greatly facilitated the organization of such companies through the provisions of general laws, while some have been reckless enough to allow such organizations to be created without regard to the actual capital invested or property owned. The result has been an abnormal organization of capital and of interests aimed at the development of the industries of the country. Material, labor, capital have been over-consumed, and to such an extent that over-production stands for over-consumption.

The Variation in the Cost of Production.—The question of the cost of production, especially so far as the labor cost relative to other elements of production is concerned, necessarily enters into the consideration of the causes and effects of industrial depressions, not that such depressions are caused by differences which may exist in the cost of producing a given article in different localities to any material extent; still it is often alleged that such differences are influential in producing a disturbance in the prices of things, and to the extent of such disturbance constitutes a remote cause of depressions. One of the most difficult tasks an investigator into economic conditions sets for himself is to ascertain the relation of the different elements in the cost of producing articles of consumption where more than one class of raw material enters into the production. The obstacles in the way are more than those which come from disinclination on the part of producers to state definitely all the cost elements involved; obstacles are met with even when the freest disposition exists to give such information. The manufacture of a given unit may require certain expenses through the remoteness of operations from the source of supplies, from condition of living, from cost of plant, from variation in the processes of manipulation, and from other conditions. It is true that if the actual facts relating to such cost of production could be ascertained beyond dispute in various localities, a wide variation would be shown; yet it is also true that the endeavor of all engaged in the production of a given unit to reduce the elements of cost to the lowest possible terms secures an approximate uniformity in the cost of making such unit where conditions are fairly

the same. So it was with a view of ascertaining how great this variation is in communities having like conditions or substantially like conditions, and in communities remote from each other with dissimilar conditions, that the facts given in the following table were gathered. This table must be considered to a large extent tentative, because in some measure incomplete; yet it shows clearly what might be accomplished if a uniform disposition on the part of producers could be met with. It was not to be expected in the first work of the Bureau that manufacturers everywhere would freely give information in the publication of which there might be caused an apprehension of injury to be received; but when it is considered that establishments have not hesitated to furnish the required information, and when it is known that no harm results to any industry through the publication of such information, it is to be hoped that in the future work of the Bureau no obstacle will be placed in its way by those most interested in giving full information freely and accurately.

The first table presented gives the labor cost, the material cost, the administrative cost, and the total cost of the production of the articles described. There are two columns comprehending administrative cost, entitled "Administrative" and "Other." These two columns were made necessary from the fact that some establishments gave administrative cost by itself, meaning the expenses of management, and the "Other" comprehending insurance, taxes, interest, depreciation, etc. In such cases the two elements are separated; but in many cases, while proprietors were willing to give the labor and material cost, they preferred, through some motives of their own, to give administrative cost and the other elements together. Should it be desired to ascertain the wages paid or the number of persons engaged in each occupation in an establishment this can be seen by reference to the table "Occupations, with Number and Wages of Employés, by Industries," Appendix A, page 295. With reference to this table and the one showing cost of production it may be stated that 759 establishments are represented in the two. Of this number, 189 reported wages only, 177 cost of production only, and 393 both wages and cost of production. Thus, wages were reported for 582 establishments, covering 149,182 employés, an average of 256 employés to each establishment. The summarizing of this long, detail table of wages is exhibited in the five tables, pages 143 to 226. The table on cost of production is so full in itself, so far as details are concerned, that no analysis of it seems to be necessary, each industry being grouped by itself, and all the states or countries from which information was obtained relative to the cost of production being brought together; as, for instance, under "Metals and Metallic Goods," all the establishments, wherever situated, manufacturing such goods are placed under that title. This enables one to examine the relative cost of production in different localities with ease, and any text analysis would simply be a restatement of the facts given compactly in the table itself.

COST OF PRODUCTION.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

AGRICULTURAL IMPLEMENTS.

Establishment No.	State.	Description of unit.
a583	Ohio	One 10-horse power thrasher with wagon and stacker
13	do	One medium thrasher with wagon and stacker
14	do	One first-class hand-dump hay-rake
15	do	One first-class hand-dump hay-rake
16	do	One first-class self-dump hay-rake
14	do	One first-class self-dump hay-rake
15	do	One first-class self-dump hay-rake
11	do	One combined mowing and reaping machine with self-raking attachment
10	do	One combined mowing and reaping machine
10	do	One mowing machine
11	do	One mowing machine
15	do	One lawn mower
10	do	One harvesting and binding machine
15	do	One first-class hay-tedder
13	do	One 10-horse-power traction farm engine
6	Kentucky	One light plough
17	Ohio	One chilled-iron plough, weighing 105 pounds
a584	do	One chilled-iron plough, weighing 115 pounds
a584	do	One chilled-iron sulky plough, weighing 350 pounds
18	do	One steel sulky plough, weighing 350 pounds
17	do	One steel plough, weighing 103 pounds
a584	do	One combination, iron and steel plough, weighing 105 pounds
a584	do	One steel plough, weighing 105 pounds
20	Pennsylvania	One centre-lever plough
7	Maine	One scythe
8	New York	One farm hoe

ARMS AND AMMUNITION.

21	Massachusetts	One double-action revolver, 38-caliber
----	---------------	--

ARTISANS' TOOLS.

22	Indiana	One 72-inch circular saw
23	do	One 10-inch circular saw
23	do	One cross-cut saw, 6½ feet in length
22	do	One small cross-cut saw

BOOTS AND SHOES.

a585	Massachusetts	One pair men's stoga boots
a586	Illinois	One pair men's first-class stoga boots
a586	do	One pair men's second-class stoga boots
a587	Ohio	One pair men's second-class stoga boots
a586	Illinois	One pair men's first-class calf boots
a586	do	One pair men's second-class calf boots
a586	do	One pair men's first-class kip boots
a586	do	One pair men's second-class kip boots
68	Ohio	One pair men's hand-pegged, farmers' kip boots
68	do	One pair men's hand-pegged domestic calf boots
a587	do	One pair men's hand-pegged domestic calf boots
a588	do	One pair men's first-class machine-sewed domestic calf boots
a587	do	One pair men's first-class machine-sewed domestic calf boots
a588	do	One pair men's first-class hand-sewed domestic calf boots
68	do	One pair men's machine-sewed French calf boots
68	do	One pair men's first-class hand-sewed French calf boots
a588	do	One pair men's first-class hand-sewed French calf boots
68	do	One pair men's hand-pegged French kip boots
a588	do	One pair men's machine-sewed kip boots
a587	do	One pair men's first-class double-soled wired or pegged kip boots
a589	Massachusetts	One pair men's boots
a587	Ohio	One pair men's common machine-sewed domestic calf button boots

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

AGRICULTURAL IMPLEMENTS.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$150.00000	\$150.00000		\$50.00000	\$350.00000	42.86	42.86		14.28	a583
89.42000	92.14000		36.31000	217.87000	41.04	42.29		16.67	13
2.60000	8.00000		2.50000	12.50000	16.00	64.00		20.00	14
2.50000	9.15000		3.25000	14.90000	16.77	61.41		21.82	15
2.40000	10.00000		2.75000	15.15000	15.84	66.01		18.15	16
2.40000	9.60000		3.00000	15.00000	16.00	64.00		20.00	14
3.00000	10.50000		4.00000	17.50000	17.14	60.00		22.86	15
24.00000	38.00000	\$13.00000	13.00000	68.00000	27.27	43.18	14.77	14.78	11
26.40000	17.02000		14.36000	51.78000	39.41	32.87		27.62	10
10.20000	8.41000		7.18000	25.79000	39.55	32.61		27.84	10
12.12000	19.00000		13.22000	44.34000	27.33	42.84		29.83	11
1.25000	1.80000		1.00000	4.05000	30.87	44.44		24.69	15
30.60000	25.53000		21.54000	77.67000	39.40	32.87		27.73	10
6.00000	14.00000		5.00000	25.00000	24.00	56.00		20.00	15
159.44000	315.56000		95.00000	570.00000	27.97	55.36		16.67	13
1.83000	1.96000	.42000	.10000	4.31000	42.46	45.47	9.75	2.82	6
2.50000	2.50000		1.00000	6.00000	41.66	41.67		16.67	17
2.00000	2.00000		3.00000	7.00000	28.57	28.58		42.85	a584
8.00000	8.00000		6.00000	22.00000	36.36	36.37		27.27	a584
8.00000	12.00000		6.00000	26.00000	30.77	46.10		23.07	18
3.75000	4.00000		1.00000	8.75000	42.86	45.71		11.43	17
2.00000	3.00000		3.00000	8.00000	25.00	37.50		37.50	a584
3.50000	8.50000		3.00000	10.00000	35.00	35.00		30.00	a584
2.27000	2.30000	.50000	.20000	5.27000	43.08	43.64	9.49	3.79	20
.12860	.12860			.32100	39.88	60.12			7
.11982	.10466	.01500	.08778	.27726	43.21	37.75	5.41	13.03	8

ARMS AND AMMUNITION.

\$3.60000	\$0.40000	\$0.12000	\$2.25000	\$6.37000	56.51	6.29	1.88	35.32	21
-----------	-----------	-----------	-----------	-----------	-------	------	------	-------	----

ARTISANS' TOOLS.

\$34.00000	\$86.00000		\$25.00000	\$125.00000	27.20	52.80		20.00	22
.42000	.25000		.16000	.83000	50.60	30.12		19.28	22
1.00000	1.80000		.70000	3.50000	28.57	51.43		20.00	22
.40000	.50000		.22000	1.12000	35.71	44.64		19.65	22

BOOTS AND SHOES.

\$0.45000	\$1.67000		\$0.05000	\$2.15000	20.93	76.74		2.33	a585
.47417	1.99083		.24500	2.71000	17.50	73.46		9.04	a586
.40250	1.56250		.19166	2.16666	18.66	72.45		8.89	a586
.76000	1.37000		.14000	2.21000	31.67	61.99		6.34	a587
.50063	2.51417		.30834	3.41384	17.31	73.66		9.03	a586
.62500	1.90417		.24167	2.67084	19.66	71.29		9.05	a586
.55824	2.07583		.26917	2.89734	19.09	71.62		9.29	a586
.50250	1.67583		.21667	2.39500	20.98	69.97		9.05	a586
.75000	1.50000		.25000	2.50000	30.00	60.00		10.00	68
.89880	1.75000		.25000	2.80000	28.57	62.50		8.93	68
.75000	1.50000		.25000	2.50000	30.00	60.00		10.00	a587
1.25000	2.25000		.35000	3.85000	32.47	58.44		9.09	a588
.92000	1.75000		.30000	2.97000	30.96	58.92		10.10	a587
2.25000	2.25000		.45000	4.95000	45.45	45.46		9.09	a588
1.00000	2.20000		.35000	3.60000	27.78	62.50		9.72	68
2.00000	2.25000		.50000	5.75000	52.17	39.13		8.70	68
2.25000	3.25000		.55000	6.05000	37.19	53.72		9.09	a588
.75000	2.00000		.25000	3.00000	25.00	66.67		8.83	68
.75000	1.75000		.25000	2.75000	27.27	63.64		9.09	a588
.90000	1.75000		.30000	2.97000	30.98	58.92		10.10	a587
.41667	1.50000		.33333	2.25000	18.52	66.67		14.81	a589
.75000	1.15000		.15000	2.05000	36.58	56.10		7.33	a587

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

BOOTS AND SHOES—Continued.

Establishment No.	State.	Description of unit.
a587	Ohio	One pair men's medium grade machine-sewed domestic calf button boots.
25	Illinois	One pair men's first-class machine-sewed domestic calf button boots.
25	do	One pair men's first-class hand-sewed domestic calf button boots.
68	Ohio	One pair men's machine-sewed calf button boots.
68	do	One pair men's hand-sewed calf button boots.
68	do	One pair men's machine-sewed kip laced boots.
68	do	One pair men's first-class machine-sewed French calf button boots.
a588	do	One pair men's first-class hand-sewed French calf button boots.
a588	do	One pair men's first-class hand-sewed French calf button boots.
a587	do	One pair men's first-class hand-sewed French calf button boots.
29	Maryland	One pair men's hand-sewed Congress boots.
29	do	One pair men's McKay machine-sewed Congress boots.
30	do	One pair men's McKay machine-sewed Congress boots.
30	do	One pair men's hand-sewed calf button boots.
29	do	One pair men's Goodyear machine-sewed calf button boots.
50	New Jersey	One pair men's hand-sewed French calf shoes.
49	Massachusetts	One pair men's hand-sewed slippers.
a590	Ohio	One pair women's common Curacao kid button boots.
591	do	One pair women's common Curacao kid button boots.
67	do	One pair women's medium grade Curacao kid button boots.
a592	do	One pair women's medium-grade Curacao kid button boots.
66	do	One pair women's medium-grade Curacao kid button boots.
65	do	One pair women's medium-grade Curacao kid button boots.
a593	Illinois	One pair women's medium-grade Curacao kid button boots.
a594	do	One pair women's medium-grade Curacao kid button boots.
a595	do	One pair women's medium-grade Curacao kid button boots.
a591	Ohio	One pair women's medium-grade Curacao kid button boots.
a590	do	One pair women's first-class Curacao kid button boots.
a592	do	One pair women's first-class Curacao kid button boots.
a593	Illinois	One pair women's first-class Curacao kid button boots.
a597	do	One pair women's first-class Curacao kid button boots.
a594	do	One pair women's first-class Curacao kid button boots.
a595	do	One pair women's first-class Curacao kid button boots.
a591	Ohio	One pair women's first-class Curacao kid button boots.
59	New York	One pair women's Curacao kid button boots.
60	do	One pair women's Curacao kid button boots.
a597	Illinois	One pair women's first-class French kid button boots.
57	New York	One pair women's straight-grain kid button boots.
41	Massachusetts	One pair women's kid button boots.
53	New York	One pair girl's Tampico kid button boots.
a590	Ohio	One pair women's common pebbled-goat button boots.
a590	do	One pair women's medium grade pebbled-goat button boots.
a592	do	One pair women's medium-grade pebbled-goat button boots.
66	do	One pair women's medium-grade pebbled-goat button boots.
65	do	One pair women's medium-grade pebbled-goat button boots.
a593	Illinois	One pair women's medium-grade pebbled-goat button boots.
a594	do	One pair women's medium-grade pebbled-goat button boots.
a595	do	One pair women's medium-grade pebbled-goat button boots.
a591	Ohio	One pair women's medium-grade pebbled-goat button boots.
a598	Illinois	One pair women's first-class pebbled-goat button boots.
a597	do	One pair women's first-class pebbled-goat button boots.
a594	do	One pair women's first-class pebbled-goat button boots.
a595	do	One pair women's first-class pebbled-goat button boots.
27	Maryland	One pair women's pebbled-goat button boots.
29	do	One pair women's pebbled-goat button boots.
28	do	One pair women's pebbled-goat button boots.
58	New York	One pair women's pebbled-goat button boots.
61	do	One pair women's pebbled-goat button boots.
62	do	One pair women's pebbled-goat button boots.
70	Pennsylvania	One pair women's pebbled-goat button boots.
52	New York	One pair girls' pebbled-goat button boots.
a592	Ohio	One pair women's medium-grade calf button boots.
65	do	One pair women's medium-grade calf button shoes.
54	New York	One pair women's first-class domestic calf button boots.
63	do	One pair women's domestic calf button boots.
51	do	One pair girl's domestic calf button boots.
55	do	One pair girl's domestic calf button boots.
64	do	One pair girl's domestic calf button boots.
56	do	One pair girl's domestic calf button boots.
42	Massachusetts	One pair women's grained-leather button boots.
a585	do	One pair women's sandals.
34	do	One pair children's ankle-tie shoes.
32	do	One pair infants' soft sole four-button shoes.

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

VARIATION IN THE COST OF PRODUCTION.

95

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

BOOTS AND SHOES—Continued.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$1.01000	\$1.44000		\$0.22000	\$2.67000	37.83	53.93		8.24	a587
.89000	1.87000		.31500	3.07500	28.94	66.81		10.25	25
1.78000	2.11500		.31500	4.19000	42.00	50.48		7.52	25
70000	1.40000		.20000	2.30000	30.43	60.87		8.70	68
2.20000	1.40000		.80000	3.90000	56.41	35.90		7.69	68
.50000	1.20000		.15000	1.85000	27.03	64.87		8.10	68
1.00000	2.25000		.30000	3.55000	28.16	63.38		8.46	a588
2.00000	2.50000		.45000	4.95000	40.41	50.50		9.09	a588
2.10000	1.57000		.20000	3.87000	54.26	40.57		5.17	a587
1.90000	1.73000		.60000	4.23000	44.92	40.89		14.19	29
.95000	1.73000		.48000	3.16000	30.06	54.75		15.19	29
1.10000	1.90000		.48000	3.48000	31.61	54.60		13.79	30
2.10000	2.15000		.68000	4.93000	42.60	43.61		13.79	30
1.02500	1.73000		.50000	3.25500	31.49	53.15		15.36	29
2.00000	\$3.75000			5.75000	34.78	65.22			50
.30000	.60000		.12000	1.02000	29.41	58.83		11.76	49
.70000	.90000		.07000	1.67000	41.92	53.99		4.19	a590
.57000	1.07000		.16000	1.80000	31.67	59.44		8.89	a591
.65000	1.25000		.05000	1.95000	33.33	64.11		2.56	67
.70000	1.30000		.20000	2.20000	31.82	59.09		9.09	a592
.50000	1.10000		.25000	1.85000	27.03	59.46		13.51	66
.57000	1.34000		.04000	1.95000	29.23	68.72		2.05	65
.65000	1.17000		.07000	1.89000	34.39	61.91		3.70	a593
.51500	1.07000		.11000	1.69500	30.38	63.13		6.49	a594
.60000	1.24000		.16000	2.00000	30.00	62.00		8.00	a595
.60000	1.25000		.18000	2.03000	29.56	61.58		8.86	a591
.93000	1.26750		.25000	2.44750	38.00	51.79		10.21	a596
.80000	1.85000		.25000	2.90000	27.59	63.79		8.62	a592
.72000	1.28000		.07000	2.07000	34.78	61.84		3.38	a593
.75000	1.65000		.25000	2.65000	28.31	62.26		9.43	a597
.78500	1.62500		.16000	2.42000	30.37	63.02		6.61	a594
.70000	1.55000		.25000	2.50000	28.00	62.00		10.00	a595
.65000	1.75000		.18000	2.58000	25.19	67.83		6.98	a591
.50700	.70000	\$0.08150	.01580	1.31470	38.61	53.24	6.96	1.19	59
.52129	.74800	.07015	.04055	1.37999	37.77	54.21	5.08	2.94	60
.85000	2.40000		.33000	3.58000	23.74	67.04		9.22	a597
.62213	1.10000	.00183	.08129	1.78635	34.89	61.57	.11	3.43	57
.88000	.88000		.12000	1.30000	29.23	61.54		9.23	41
.56890	.93900	.03310	.10260	1.64380	34.61	57.13	2.01	6.25	53
.70000	.77383		.07000	1.54383	45.36	50.11		4.53	a590
.60500	.78000		.15000	1.53500	39.42	50.81		9.77	a596
.50000	1.01000		.18000	1.78000	33.15	56.74		10.11	a592
.50000	1.00000		.25000	1.75000	28.58	57.14		14.28	66
.55000	1.10000		.04000	1.69000	32.54	63.10		2.36	65
.65000	1.07500		.07000	1.79500	36.21	59.89		3.90	a593
.47500	.97000		.10000	1.54500	30.74	62.78		6.48	a594
.50000	1.18000		.12000	1.75000	28.57	64.57		6.86	a595
.54000	1.02000		.16000	1.72000	31.40	59.30		9.30	a591
.71000	1.17000		.07000	1.95000	36.41	60.00		3.59	a593
.70000	1.20000		.20000	2.10000	33.33	57.15		9.52	a597
.62886	1.01750		.11416	1.75832	35.64	57.87		6.49	a594
.50000	1.34000		.16000	2.00000	25.00	67.00		8.00	a595
.74000	.90000		.25000	1.89000	39.15	47.62		13.23	37
.68000	1.06040		.17000	1.89040	34.91	56.09		9.00	29
.78000	.96920		.25000	1.97920	38.40	48.97		12.68	28
.58140	.96800	.06810	.01470	1.70220	34.74	58.63	5.76	.87	58
.59689	.97100	.03000	.13790	1.73520	34.02	55.95	2.07	7.96	61
.59170	1.00000	.03580	.06280	1.69010	35.01	59.17	2.13	8.70	63
.59900	.97700	.05000	.05000	1.65700	35.00	58.96	2.02	8.02	70
.67239	.68000	.04800	.04700	1.42730	47.10	46.24	2.86	8.30	52
.70000	1.13000		.20000	2.03000	34.48	55.67		9.85	a592
.48000	1.20000		.04000	1.72000	27.90	69.77		2.33	65
.66869	1.23000	.12111	.05332	2.01112	30.17	61.16	6.02	2.65	54
.57525	.80000	.03333	.02382	1.43240	40.16	55.85	2.33	1.66	63
.53400	.79000	.06600	.01700	1.43700	37.16	54.97	4.60	3.27	51
.61160	.68000	.02292	.02166	1.33618	45.77	50.90	1.71	1.62	55
.58770	.77400	.04070	.09050	1.49490	39.45	51.78	2.72	6.05	64
.62330	.68000	.06704	.02730	1.38064	45.36	47.80	4.86	1.98	56
.25000	.70000		.03000	.98500	45.89	71.07		3.04	42
.67000	.22000	.01000		.30000	23.33		8.34		a585
.21800	.25500			.46500	45.16	54.84			34
.65400	.08500		.03000	.16900	31.95	50.30		17.75	32

b All expenses except labor are included in this amount.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

BOOTS AND SHOES—Concluded.

Establishment No.	State.	Description of unit.
31	Massachusetts	One pair infants' soft sole four-button shoes
32	do	One pair infants' hard sole four-button shoes
31	do	One pair infants' hard sole four-button shoes
69	Pennsylvania	One pair youths' leather-tipped shoes

BRICKS.

74	Delaware	One thousand common bricks
a598	Georgia	One thousand common bricks
a599	Tennessee	One thousand common bricks

CARPETINGS.

84	Connecticut	One yard extra superfine ingrain carpet (weighing 21 ounces to the yard).
95	Pennsylvania	One yard ingrain carpet
94	do	One yard worsted velvet carpet
89	Massachusetts	One yard tapestry brussels carpet
91	New York	One yard (eight wire) tapestry brussels carpet
91	do	One yard moquette carpet
a600	Maine	One square yard floor oil cloth
a601	New Jersey	One yard oil cloth (50 inches wide, enameled duck)

CARRIAGES AND WAGONS.

108	Illinois	One first-class hand-made leather-top top buggy
100	do	One first-class hand-made leather-top top buggy
a602	do	One first-class hand-made leather-top top buggy
101	do	One first-class hand-made leather-top top buggy
a603	Ohio	One first-class hand-made leather-top top buggy
a604	do	One first-class hand-made leather-top top buggy
a605	do	One first-class hand-made leather-top top buggy
a606	do	One first-class hand-made leather-top top buggy
a607	do	One first-class hand-made leather-top top buggy
a608	do	One first-class leather-top top buggy
102	do	One ordinary leather-top top buggy
102	Illinois	One first-class machine-made top buggy
106	Ohio	One first-class machine-made top buggy
97	Connecticut	One top buggy, with side bar
101	Illinois	One first-class hand-made phaeton
100	do	One first-class hand-made phaeton
a608	Ohio	One first-class hand-made phaeton
a605	do	One first-class hand-made phaeton
a606	do	One first-class hand-made phaeton
a607	do	One first-class hand-made phaeton
106	do	One first-class machine-made phaeton
103	Illinois	One first-class hand-made canopy top surrey wagon
101	do	One first-class hand-made canopy top surrey wagon
a602	do	One first-class hand-made canopy top surrey wagon
100	do	One first-class hand-made canopy top surrey wagon
a603	Ohio	One first-class hand-made canopy top surrey wagon
a605	do	One first-class hand-made canopy top surrey wagon
a607	do	One first-class hand-made canopy top surrey wagon
102	Illinois	One first-class machine-made without-top surrey wagon
96	Connecticut	One first-class fire-glass landau
99	do	One first-class fire-glass landau
98	do	One first-class fire-glass landau
100	Illinois	One first-class fire-glass landau
97	Connecticut	One first-class cabriolet
96	do	One first-class cabriolet
a602	Illinois	One first-class hand-made two-wheeled road cart
102	do	One first-class machine-made two-wheeled road cart
100	do	One first-class spring wagon
102	do	One first-class spring wagon
104	New Jersey	One first-class Berlin coach

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

BOOTS AND SHOES—Continued.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$0.04500	\$0.05500	.....	\$0.00750	\$0.10750	41.86	51.16	.....	6.98	81
.06750	.08500	.....	.08000	.18250	56.92	44.58	.....	16.43	32
.08750	.06500	.....	.00750	.14000	48.21	46.43	.....	5.36	31
.18100	.35550	.....	.19740	.63390	19.15	51.98	.....	28.87	69

BRICKS.

\$4.80000	\$0.25000	.....	.....	\$7.05000	96.45	3.55	.....	.....	74
1.45000	.45000	.....	.....	3.90000	88.46	11.54	.....	.....	a598
3.50000	1.00000	.....	.....	4.50000	77.78	22.22	.....	.....	a599

CARPETINGS.

\$0.14000	\$0.43000	.....	\$0.05000	\$0.62000	22.58	69.36	.....	8.06	84
.06100	.13250	\$0.00500	.01000	.20850	29.26	63.55	2.40	4.79	95
.48100	.80000	.....	.37000	1.65100	29.13	48.48	.....	22.41	94
.14000	.48000	.....	.....	.62000	22.58	77.42	.....	.....	89
.14700	.41020	.00700	.00400	.56820	25.87	72.19	1.24	.70	91
.38000	.53210	.05000	.00900	.94110	37.19	56.54	5.31	.98	91
.05020	.20990	.....	.....	.26000	19.31	80.69	.....	.....	a600
.06000	.07000	.....	.....	.12000	41.67	58.33	.....	.....	a601

CARRIAGES AND WAGONS.

\$119.00000	\$112.50000	.....	\$15.00000	\$246.50000	48.27	45.64	.....	6.09	103
68.50000	76.50000	.....	21.90000	166.90000	41.04	45.84	.....	13.12	100
91.00000	120.60000	.....	10.00000	221.60000	41.06	54.42	.....	4.52	a602
83.00000	110.00000	.....	20.00000	213.00000	38.97	51.64	.....	9.39	101
96.70000	107.85000	.....	40.84000	245.39000	39.40	43.95	.....	16.65	a603
94.00000	105.00000	.....	15.00000	214.00000	43.93	49.07	.....	7.00	a604
75.00000	103.00000	.....	15.00000	193.00000	38.86	52.37	.....	7.77	a605
58.00000	76.68000	.....	30.57000	165.25000	35.10	46.40	.....	18.50	a606
70.00000	80.00000	.....	22.50000	172.50000	40.58	46.38	.....	13.04	a607
21.50000	73.00000	.....	8.50000	103.00000	20.87	70.88	.....	8.25	105
15.50000	71.00000	.....	4.50000	91.00000	17.03	78.02	.....	4.95	102
18.00000	74.30000	.....	12.20000	105.16000	17.69	70.65	.....	11.66	106
97.30000	121.01000	.....	43.64000	261.85000	37.12	46.21	.....	16.67	97
125.00000	140.00000	.....	25.00000	300.00000	45.00	46.67	.....	8.33	101
77.50000	92.00000	.....	19.00000	188.50000	41.11	48.81	.....	10.08	100
115.50000	124.65000	.....	48.03000	288.18000	40.08	43.25	.....	16.67	a608
81.00000	110.00000	.....	15.00000	206.00000	39.32	53.40	.....	7.28	a605
58.18000	88.62000	.....	36.70000	183.70000	31.67	48.35	.....	19.98	a606
75.00000	85.00000	.....	24.00000	184.00000	40.76	46.20	.....	13.04	a607
21.25000	84.85000	.....	14.00000	120.10000	17.69	70.65	.....	11.66	106
120.00000	122.60000	.....	25.00000	267.60000	44.84	45.82	.....	9.34	103
112.00000	110.00000	.....	25.00000	248.00000	45.56	44.36	.....	10.08	101
90.00000	133.00000	.....	18.00000	250.00000	39.60	53.20	.....	7.20	a602
75.00000	72.00000	.....	21.15000	168.15000	44.60	42.82	.....	12.58	100
120.00000	114.00000	.....	48.80000	282.80000	42.43	40.81	.....	17.26	a603
64.00000	106.00000	.....	15.00000	205.00000	40.97	51.71	.....	7.32	a105
80.00000	80.00000	.....	24.00000	184.00000	43.48	43.48	.....	13.04	a607
17.50000	36.50000	.....	4.00000	58.00000	30.17	62.93	.....	6.90	102
264.00000	476.00000	.....	100.00000	860.00000	83.02	55.35	.....	11.63	96
237.00000	502.00000	.....	115.00000	855.00000	27.72	58.83	.....	13.45	99
228.15000	312.98000	.....	130.42000	782.55000	43.34	39.99	.....	16.67	98
229.00000	429.00000	.....	118.00000	867.00000	36.91	49.48	.....	13.61	100
153.50000	246.84000	.....	86.08000	516.40000	35.53	47.80	.....	16.67	97
188.50000	262.00000	.....	50.00000	500.00000	37.60	52.40	.....	10.00	96
24.00000	37.50000	.....	2.00000	63.50000	37.79	59.06	.....	3.15	a602
8.78000	18.00000	.....	1.25000	28.00000	31.25	64.29	.....	4.46	102
41.00000	30.00000	.....	10.00000	81.00000	50.62	37.04	.....	12.34	100
15.00000	33.80000	.....	4.00000	52.80000	28.41	61.01	.....	7.58	102
225.00000	300.00000	.....	90.00000	725.00000	46.21	41.38	.....	12.41	104

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

CLOCKS AND WATCHES.

Establishment No.	State.	Description of unit.
108	Illinois	One average watch-movement
109	Ohio	One average watch-movement

CLOTHING.

a808	Illinois	One suit common all-wool cassimere
a809	do	One suit common all-wool cassimere
a810	do	One suit common all-wool cassimere
a811	do	One suit common all-wool cassimere
a812	do	One suit common all-wool cassimere
a813	Ohio	One suit common all-wool cassimere
a814	do	One suit common all-wool cassimere
a815	do	One suit common all-wool cassimere
a808	Illinois	One suit medium all-wool cassimere
a809	do	One suit medium all-wool cassimere
a810	do	One suit medium all-wool cassimere
a811	do	One suit medium all-wool cassimere
a812	do	One suit medium all-wool cassimere
a813	Ohio	One suit medium all-wool cassimere
a814	do	One suit medium all-wool cassimere
a815	do	One suit medium all-wool cassimere
a808	Illinois	One suit fine all-wool cassimere
a809	do	One suit fine all-wool cassimere
a810	do	One suit fine all-wool cassimere
a811	do	One suit fine all-wool cassimere
a812	do	One suit fine all-wool cassimere
a813	Ohio	One suit fine all-wool cassimere
a814	do	One suit fine all-wool cassimere
a815	do	One suit fine all-wool cassimere
a809	Illinois	One suit union cassimere
a810	do	One suit union cassimere
a811	do	One suit union cassimere
a812	do	One suit union cassimere
a813	Ohio	One suit union cassimere
a814	do	One suit union cassimere
a815	do	One suit union cassimere
a808	Illinois	One suit Middlesex flannel
a809	do	One suit Middlesex flannel
a810	do	One suit Middlesex flannel
a811	do	One suit Middlesex flannel
a812	do	One suit Middlesex flannel
a813	Ohio	One suit Middlesex flannel
a814	do	One suit Middlesex flannel
a815	do	One suit Middlesex flannel
a816	do	One suit Middlesex flannel
a817	do	One suit Middlesex flannel
a818	do	One suit Middlesex flannel
a808	Illinois	One suit medium worsted
a809	do	One suit medium worsted
a810	do	One suit medium worsted
a811	do	One suit medium worsted
a812	do	One suit medium worsted
a813	Ohio	One suit medium worsted
a814	do	One suit medium worsted
a815	do	One suit medium worsted
a808	Illinois	One suit fine worsted
a809	do	One suit fine worsted
a810	do	One suit fine worsted
a811	do	One suit fine worsted
a812	do	One suit fine worsted
a813	Ohio	One suit fine worsted
a814	do	One suit fine worsted
a815	do	One suit fine worsted
a816	do	One suit fine worsted
a817	do	One suit fine worsted
a818	do	One suit fine worsted
a809	Illinois	One suit medium Riverside worsted
a810	do	One suit medium satinet
a811	do	One suit medium satinet
a812	do	One suit medium satinet

a The wages of employes in this establishment were not reported. Therefore the number will not be found in the wage table, Appendix A.



VARIATION IN THE COST OF PRODUCTION.

99

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

CLOCKS AND WATCHES.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$4. 16000	\$0. 93500	.....	\$0. 55000	\$5. 64500	73. 70	16. 56	.....	9. 74	108
4. 12000	1. 87000	.....	1. 50000	7. 49000	55. 01	24. 96	.....	20. 03	100

CLOTHING.

\$2. 06000	\$6. 00000	.....	\$0. 35000	\$8. 41000	24. 50	71. 34	.....	4. 16	a008
2. 63000	6. 87000	.....	1. 0000	9. 60000	27. 40	71. 56	.....	1. 04	a009
2. 53000	6. 87000	.....	.....	9. 40000	26. 91	73. 09	.....	.....	a010
2. 40000	8. 22000	.....	.....	10. 62000	22. 60	77. 40	.....	.....	a011
2. 02500	7. 67000	.....	3. 0000	9. 99500	20. 26	76. 74	.....	3. 00	a012
1. 50000	7. 80000	.....	3. 0000	9. 60000	15. 62	81. 25	.....	3. 13	a013
1. 60000	7. 65000	.....	5. 9000	9. 84000	16. 26	77. 74	.....	6. 00	a014
1. 62000	7. 40000	.....	4. 8000	9. 50000	17. 05	77. 90	.....	5. 05	a015
2. 57500	8. 25000	.....	3. 5000	11. 17500	23. 04	73. 83	.....	3. 13	a008
2. 65000	9. 41000	.....	1. 0000	12. 16000	21. 79	77. 39	.....	. 82	a009
2. 64000	9. 25000	.....	.....	11. 89000	22. 14	77. 86	.....	.....	a010
2. 75000	11. 31000	.....	.....	14. 06000	19. 56	80. 44	.....	.....	a011
2. 45000	10. 58000	.....	3. 0000	13. 31000	18. 40	79. 34	.....	2. 26	a012
1. 75000	10. 10000	.....	3. 9000	12. 24000	14. 30	82. 51	.....	3. 19	a013
1. 80000	10. 10000	.....	8. 4000	12. 74000	14. 13	79. 28	.....	6. 50	a014
1. 69000	9. 90000	.....	1. 05000	12. 64000	13. 37	78. 32	.....	8. 31	a015
2. 80000	15. 50000	.....	3. 5000	19. 65000	19. 34	78. 88	.....	1. 78	a008
3. 08000	12. 86000	.....	1. 0000	16. 04000	19. 20	80. 18	.....	. 62	a009
3. 10000	12. 75000	.....	.....	15. 85000	19. 56	80. 44	.....	.....	a010
3. 10000	14. 94000	.....	.....	18. 04000	17. 18	82. 82	.....	.....	a011
2. 87500	14. 56500	.....	1. 0000	17. 54000	16. 39	83. 04	.....	. 57	a012
2. 55000	13. 80000	.....	6. 4000	16. 99000	15. 01	81. 22	.....	3. 77	a013
2. 45000	13. 80000	.....	1. 00000	17. 20000	14. 20	80. 00	.....	5. 40	a014
2. 17000	13. 50000	.....	1. 50000	17. 17000	12. 64	78. 62	.....	8. 74	a015
1. 70000	4. 13000	.....	1. 0000	5. 93000	28. 67	69. 64	.....	1. 09	a009
1. 67000	4. 13000	.....	.....	5. 80000	28. 79	71. 21	.....	.....	a010
1. 75000	5. 50000	.....	.....	7. 25000	24. 14	75. 86	.....	.....	a011
1. 47500	4. 89000	.....	2. 5000	6. 61500	22. 30	73. 92	.....	3. 78	a012
1. 27000	4. 20000	.....	3. 1000	5. 78000	21. 97	72. 67	.....	5. 36	a013
1. 21000	4. 30000	.....	2. 2000	5. 73000	21. 12	75. 04	.....	3. 84	a014
1. 35000	4. 20000	.....	3. 3000	5. 88000	22. 96	71. 43	.....	5. 61	a015
2. 45000	3. 45000	.....	3. 5000	9. 25000	26. 49	69. 73	.....	3. 78	a008
1. 85000	6. 42000	.....	2. 6000	8. 47000	21. 84	75. 80	.....	2. 36	a009
1. 73000	6. 10000	.....	.....	7. 83000	22. 10	77. 90	.....	.....	a010
2. 00000	7. 45000	.....	.....	9. 45000	21. 16	78. 84	.....	.....	a011
1. 67500	6. 95000	.....	1. 0000	8. 72500	19. 20	79. 06	.....	1. 14	a012
1. 53000	6. 45000	.....	2. 1000	8. 19000	18. 68	78. 76	.....	2. 56	a013
1. 50000	6. 80000	.....	5. 0000	8. 80000	17. 05	77. 27	.....	5. 68	a014
1. 60000	6. 50000	.....	5. 9000	8. 69000	18. 41	74. 80	.....	6. 70	a015
1. 25000	6. 03000	.....	2. 9000	7. 59000	16. 47	79. 71	.....	3. 82	a010
1. 60000	6. 30000	.....	6. 3000	8. 53000	18. 76	73. 85	.....	7. 39	a011
1. 50000	5. 80000	.....	7. 5000	8. 05000	18. 63	72. 05	.....	9. 32	a012
3. 00000	11. 25000	.....	3. 5000	14. 60000	20. 55	77. 05	.....	2. 40	a008
2. 53000	6. 67000	.....	1. 0000	9. 30000	27. 20	71. 72	.....	1. 08	a009
2. 53000	6. 80000	.....	.....	9. 13000	27. 71	72. 29	.....	.....	a010
2. 40000	8. 02000	.....	.....	10. 42000	23. 13	76. 97	.....	.....	a011
2. 27500	7. 77000	.....	2. 5000	10. 29500	22. 10	75. 47	.....	2. 43	a012
1. 80000	6. 88000	.....	2. 5000	8. 91000	20. 20	77. 00	.....	2. 80	a013
1. 65000	5. 88000	.....	4. 2000	7. 93000	20. 80	73. 90	.....	5. 30	a014
1. 60000	6. 88000	.....	6. 8000	9. 16000	17. 47	75. 11	.....	7. 42	a015
3. 80000	14. 50000	.....	3. 5000	18. 65000	20. 38	77. 74	.....	1. 88	a008
3. 08000	10. 72000	.....	1. 0000	13. 90000	22. 16	77. 13	.....	. 71	a009
3. 08000	10. 65000	.....	.....	13. 73000	22. 43	77. 57	.....	.....	a010
3. 45000	13. 44000	.....	.....	16. 89000	20. 43	79. 57	.....	.....	a011
3. 02500	12. 84000	.....	0. 30000	16. 16500	18. 71	79. 43	.....	1. 86	a012
2. 45000	11. 55000	.....	1. 06000	15. 06000	16. 27	76. 69	.....	7. 04	a013
2. 40000	11. 55000	.....	1. 33000	15. 28000	15. 71	75. 58	.....	8. 70	a014
2. 30000	10. 30000	.....	1. 55000	14. 15000	16. 25	72. 79	.....	10. 96	a015
2. 45000	11. 55000	.....	5. 0000	14. 50000	16. 49	79. 66	.....	3. 45	a008
2. 20000	8. 00000	.....	5. 0000	10. 70000	20. 56	74. 77	.....	4. 67	a009
3. 00000	11. 25000	.....	1. 09000	15. 34000	19. 65	73. 34	.....	7. 11	a010
1. 35000	2. 47500	.....	1. 0000	3. 92500	34. 39	63. 06	.....	2. 55	a011
1. 22000	2. 42500	.....	.....	3. 74500	35. 24	64. 76	.....	.....	a012
1. 30000	3. 12500	.....	.....	4. 42500	29. 38	70. 62	.....	.....	a013
1. 20000	2. 75500	.....	2. 20000	4. 16500	28. 88	66. 31	.....	4. 81	a014

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91:

CLOTHING—Concluded.

Establishment No.	State.	Description of unit.
a613	Ohio	One suit medium satinet
a614	do	One suit medium satinet
a615	do	One suit medium satinet
a608	Illinois	One suit fine cloth
a617	Ohio	One suit common jeans, wool-filled
a618	do	One suit common jeans, wool-filled
127	Pennsylvania	One yard medium grade jersey cloth
127	do	One medium grade women's jersey
127	do	One medium grade men's jersey coat
127	do	One medium grade women's jersey skirt
127	do	One medium grade jersey polo cap
128	do	One dozen round-crown stiff hats
111	New Jersey	One dozen men's soft felt hats
110	do	One dozen men's soft felt hats
a619	New Hampshire	One dozen women's ribbed hose
a619	do	One dozen girls' ribbed hose
180	Virginia	One dozen cotton knit under-shirts
125	New York	One dozen colored knit cotton under-garments
112	do	One dozen (9 pounds) colored knit cotton under-garments
122	do	One dozen (7.4 pounds) knit cotton under-garments
126	do	One dozen colored knit cotton and wool under-garments
120	do	One dozen colored knit cotton and wool under-garments
116	do	One dozen colored knit cotton and wool under-garments
119	do	One dozen colored knit cotton and wool under-garments
124	do	One dozen colored knit cotton and wool under-garments
121	do	One dozen colored knit cotton and wool under-garments
a620	do	One dozen colored knit cotton and wool under-garments
115	do	One dozen colored knit cotton and wool under-garments
118	do	One dozen (8.5 pounds) knit cotton and wool under-garments
113	do	One dozen (8.5 pounds) knit cotton and wool under-garments
a621	do	One dozen (8.5 pounds) colored knit cotton and wool under-garments
114	do	One dozen (6 pounds) colored knit women's woolen under-garments
123	do	One dozen (8.5 pounds) scarlet knit woolen under-garments
a622	do	One dozen (8 pounds) colored knit woolen under-garments

COAL, COKE, AND ORE.^b

a671	Ohio (Tuscarawas Valley district).	One ton (2,000 pounds) bituminous lump coal
a672	do	One ton (2,000 pounds) bituminous lump coal
a673	do	One ton (2,000 pounds) bituminous lump coal
142	do	One ton (2,000 pounds) bituminous lump coal
141	do	One ton (2,000 pounds) bituminous lump coal
140	do	One ton (2,000 pounds) bituminous lump coal
146	Ohio (Hocking Valley district).	One ton (2,000 pounds) bituminous lump coal
147	do	One ton (2,000 pounds) bituminous lump coal
a674	do	One ton (2,000 pounds) bituminous lump coal
146	do	One ton (2,000 pounds) bituminous lump coal
148	do	One ton (2,000 pounds) bituminous lump coal
149	do	One ton (2,000 pounds) bituminous lump coal
a675	Ohio (Connotton Valley district).	One ton (2,000 pounds) bituminous lump coal
a676	do	One ton (2,000 pounds) bituminous lump coal
a677	Ohio (Jackson County district).	One ton (2,000 pounds) bituminous lump coal
a678	do	One ton (2,000 pounds) bituminous lump coal
143	do	One ton (2,000 pounds) bituminous lump coal
a679	do	One ton (2,000 pounds) bituminous lump coal
a680	do	One ton (2,000 pounds) bituminous lump coal
a681	do	One ton (2,000 pounds) bituminous lump coal
144	do	One ton (2,000 pounds) bituminous lump coal
a682	do	One ton (2,000 pounds) bituminous lump coal
a683	do	One ton (2,000 pounds) bituminous lump coal
a684	do	One ton (2,000 pounds) bituminous lump coal

^a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

^b In Ohio and West Virginia the value of the screenings has been deducted to arrive at the net cost of a ton of coal. This deduction has been made in the column headed Other. The royalty, or amount paid to the owners of the land for the privilege of mining, varying from 5 to 40 cents per ton, is included, in all states, in the column headed Other.

VARIATION IN THE COST OF PRODUCTION.

101

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

CLOTHING—Concluded.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Adminis- tration.	Other.	Total.	Labor.	Materials.	Adminis- tration.	Other.	
\$1.11000	\$2.50000		\$0.25000	\$3.86000	28.70	64.76		6.48	a613
.95000	2.50000		.15000	3.80000	25.00	71.05		3.95	a614
1.18000	2.40000		.09000	3.67000	32.15	65.40		2.45	a615
5.75000	20.50000		.35000	26.60000	21.62	77.07		1.31	a608
.85000	2.48000		.02000	3.35000	25.37	74.03		.60	a617
1.30000	2.75000		.26000	4.31000	30.16	63.81		6.03	a618
.11305	.50780		.06094	.68240	16.06	74.41		8.93	127
.07120	.54310	\$0.00250	.00800	.68480	10.39	79.31	9.13	1.17	127
1.01250	1.57500		.25800	2.84550	35.58	55.35		9.07	127
.10000	1.01400		.13200	1.24600	8.02	81.39		10.59	127
.01330	.05000		.01000	.07330	18.14	68.21		13.65	127
7.00000	9.00000		3.00000	19.00000	36.84	47.37		15.79	128
7.00000	7.00000			14.00000	50.00	50.00			111
6.75000	8.75000			15.50000	43.55	56.45			110
.80000	1.80000		.50000	3.10000	25.81	58.06		16.13	a619
.70000	1.05000		.30000	2.05000	34.15	51.22		14.63	a619
.53000	1.11800	.16600	.04000	1.85400	28.59	60.30	8.95	2.16	130
.76000	1.34050		.11210	2.22160	34.61	60.34		5.05	125
.90830	1.70140		.44430	3.14400	31.75	54.12		14.13	112
.44462	.92300	.04600	.15039	1.57301	28.26	58.68	2.92	10.14	122
1.17200	1.82430		.56210	3.54840	33.03	51.41		15.56	126
1.33290	1.59170		.21020	3.13480	42.52	50.77		6.71	120
1.49600	1.82000		.44700	3.76300	39.76	48.36		11.88	116
1.35910	2.15650		.45160	3.96720	34.26	54.35		11.39	119
1.21712	1.75840		.27850	3.25402	37.40	54.04		8.56	124
1.14410	1.93000	.31700	.44000	3.83110	29.86	50.38	8.27	11.49	121
1.61110	1.20000	.12310	.27650	3.21070	50.18	37.37	3.84	8.61	a620
1.55080	1.35000	.13400	.30590	3.24070	46.42	40.41	4.01	0.16	115
1.34290	1.72600		.44000	3.50890	38.27	49.19		12.54	118
1.22960	1.52420		.55090	3.30470	37.21	46.12		16.67	113
.99600	1.92300		.60060	3.51960	54.64	54.64		17.06	a621
1.02150	1.89550		.22000	3.14000	32.47	60.25		7.28	114
.92700	1.74000		.31670	2.98370	31.07	58.31		10.62	123
1.15240	2.34810		.41590	3.91640	29.42	59.96		10.62	a622

COAL, COKE, AND ORE. b

a60.75000			\$0.49000	\$1.24000	60.48			39.52	a671
c.75000			.45500	1.20500	62.24			37.76	a672
c.75000			.64000	1.39000	53.96			46.04	a673
c.75000			.39000	1.14000	65.79			34.21	142
c.75000			.46000	1.21000	61.98			38.02	141
c.75000			.49000	1.24000	60.48			39.52	140
.78830		\$0.04080	.06860	.90750	86.86		5.47	7.67	146
.64000		.06750	.03000	.73750	86.78		9.15	4.07	147
.66410		.08480	.09500	.84390	78.69		10.05	11.26	a674
d.1.01650		.04280	.07110	1.12440	89.87		3.81	6.32	146
d.93680		.04690	.05730	1.03450	89.83		4.53	5.54	148
d.91240		.03260	.09800	1.04300	87.48		3.13	9.39	149
.79000			.05000	.84000	94.05			5.95	a675
.79000			(e)	.79000					a676
c.50000			.44500	.94500	52.91			47.09	a677
e.50000			.31500	.81500	61.35			38.65	a678
e.50000			.26000	.76000	65.79			34.21	143
e.50000			.32000	.82000	60.98			39.02	a679
e.55000			.31500	.86500	63.58			36.42	a680
e.55000			.33500	.88500	62.15			37.85	a681
e.55000			.36000	.91000	60.44			39.56	144
e.55000			.28000	.83000	66.26			33.74	a682
b.65000			.28500	.83500	65.87			34.13	a683
b.50000			.39500	.89500	55.87			44.13	a684

^aMining only; other labor aside from mining included in column headed Other.

^bProduction for 1883 when the price of mining averaged 75 cents per ton (1885, 50 cents per ton).

^cThe value of the screenings equal the "other" expenses.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

COAL, COKE, AND ORE—Concluded.

Establishment No.	State.	Description of unit.
a685	Ohio (Jackson County district).	One ton (2,000 pounds) bituminous lump coal.....
150	Ohio (Sunday Creek Valley district).	One ton (2,000 pounds) bituminous lump coal.....
a686	do	One ton (2,000 pounds) bituminous lump coal.....
a687	do	One ton (2,000 pounds) bituminous lump coal.....
a688	do	One ton (2,000 pounds) bituminous lump coal.....
a689	Pennsylvania (Pittsburg district).	One ton (2,000 pounds) bituminous lump coal.....
151	do	One ton (2,000 pounds) bituminous lump coal.....
152	do	One ton (2,000 pounds) bituminous lump coal.....
135	Maryland (Cumberland district).	One ton (2,240 pounds) run of mine bituminous coal.....
136	do	One ton (2,240 pounds) run of mine bituminous coal.....
137	do	One ton (2,240 pounds) run of mine bituminous coal.....
a690	Ohio (Mahoning Valley district).	One ton (2,000 pounds) run of mine bituminous coal.....
a691	Ohio (Ohio River district).	One ton (2,000 pounds) run of mine bituminous coal.....
a692	do	One ton (2,000 pounds) run of mine bituminous coal.....
a693	Ohio (Bellairs district)	One ton (2,000 pounds) run of mine bituminous coal.....
a694	West Virginia (Ohio River district).	One ton (2,000 pounds) run of mine bituminous coal.....
161	do	One ton (2,000 pounds) run of mine bituminous coal.....
a695	West Virginia (Wheeling district).	One ton (2,000 pounds) run of mine bituminous coal.....
a696	do	One ton (2,000 pounds) run of mine bituminous coal.....
181	Great Britain.....	One ton run of mine bituminous coal.....
a697	Alabama.....	One ton (2,240 pounds) run of mine bituminous coking coal.....
153	Pennsylvania (Connellsville district).	One ton (2,000 pounds) run of mine bituminous coking coal.....
a698	do	One ton (2,000 pounds) run of mine bituminous coking coal.....
159	West Virginia (New River district).	One ton (2,240 pounds) run of mine bituminous coking coal.....
a699	do	One ton (2,240 pounds) run of mine bituminous coking coal.....
158	do	One ton (2,240 pounds) run of mine bituminous coking coal.....
160	do	One ton (2,240 pounds) run of mine bituminous coking coal.....
155	Virginia.....	One ton (2,240 pounds) block, lump coal.....
133	Indiana (Clay County district).	One ton (2,000 pounds) block, lump coal.....
134	Indiana (Evansville district).	One ton (2,000 pounds) block, lump coal.....
a700	Ohio (Mahoning Valley district).	One ton (2,000 pounds) block, lump coal.....
a701	do	One ton (2,000 pounds) block, lump coal.....
a702	do	One ton (2,000 pounds) block, lump coal.....
a703	do	One ton (2,000 pounds) block, lump coal.....
a704	West Virginia (Kanawha Valley district).	One ton (2,240 pounds) gas coal.....
162	do	One ton (2,240 pounds) gas coal.....
a705	do	One ton (2,240 pounds) gas coal.....
163	do	One ton (2,240 pounds) gas coal.....
164	do	One ton (2,240 pounds) splint coal.....
165	do	One ton (2,240 pounds) splint coal.....
a706	do	One ton (2,240 pounds) splint coal.....
a707	do	One ton (2,240 pounds) splint coal.....
a708	Germany.....	One thousand kilograms (2,205 pounds) coal.....
a709	do	One thousand kilograms (2,205 pounds) coal.....
a710	Alabama.....	One ton (2,240 pounds) coke.....
153	Pennsylvania (Connellsville district).	One ton (2,000 pounds) coke.....
154	do	One ton (2,000 pounds) coke.....
a711	West Virginia (New River district).	One ton (2,240 pounds) coke.....
a712	do	One ton (2,240 pounds) coke.....
166	do	One ton (2,240 pounds) coke.....
a713	Virginia.....	One ton (2,240 pounds) coke.....
139	Missouri.....	One ton iron ore.....
157	Virginia.....	One ton iron ore.....
156	do	One ton iron ore.....
132	Great Britain.....	One ton iron ore (yielding 28 per cent.).....

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

COAL, COKE, AND ORE—Concluded.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
b. 50000			.30500	.80500	62.11			37.89	a685
c1. 06500			.06700	1.13200	94.08			5.92	150
b. 40000			.24000	.64000	62.50			37.50	a686
b. 40000			.28000	.68000	64.60			35.40	a687
b. 40000			.22000	.62000	64.52			35.48	a688
b. 72400			.46100	1.18500	61.10			38.90	a689
.91500			.19500	1.11000	82.43			17.57	151
.88500			.23250	1.12750	79.38			20.62	152
.50000		\$0.07000	.29000	.86000	58.14		8.14	33.72	135
.47000		.00000	.29000	.82000	57.31		7.32	35.37	136
.51080		.09000	.29000	.86080	59.30		6.98	33.72	137
.57000			.47500	1.04500	54.55			45.45	a690
b. 40000			.47500	.87500	45.71			54.29	a691
b. 40000			.37500	.77500	51.61			48.39	a692
b. 50000			.42500	.92500	54.05			45.95	a693
b. 40000			.41250	.81250	49.28			50.72	a694
b. 40000			.35000	.75000	53.33			46.67	161
b. 50000			.37500	.87500	57.14			42.86	a695
b. 50000			.50000	1.00000	50.00			50.00	a696
.67725			.19800	.87525	77.38			22.62	131
.74000			.20000	.94000	78.72			21.28	a697
.38450			.09000	.47450	81.08			18.92	153
.39400			.10300	.49700	79.28			20.72	a698
b. 40000			.35000	.75000	53.33			46.67	159
b. 40000			.40000	.80000	50.00			50.00	a699
b. 40000			.40000	.80000	50.00			50.00	158
b. 40000			.50000	.90000	44.44			55.56	160
1.36800		.15000	.20000	1.71800	79.62		8.73	11.65	155
1.05000			.15000	1.20000	87.50			12.50	133
.95000		.20000	.15250	1.30250	72.93		15.36	11.71	134
b. 75000			.87900	1.62000	46.30			53.70	a700
1.24000		.03500	.35000	1.52500	81.31		2.30	16.39	a701
1.33000		.05000	.19000	1.57000	84.71		3.10	12.10	a702
b. 09000			.88500	1.58500	43.45			56.55	a703
b. 58000			.44000	1.00000	56.00			44.00	a704
b. 50000			.40000	.90000	58.33			41.67	162
b. 50000			.41000	.91000	57.78			42.22	a705
b. 50000			.44000	1.00000	56.00			44.00	163
b. 62500			.22500	.85000	73.53			26.47	104
b. 62500			.35000	.97500	64.10			35.90	165
b. 62500			.20000	.82500	75.76			24.24	a706
b. 62500			.35000	.97500	64.10			35.90	a707
.63200			.41200	1.04400	60.54			39.46	a708
.75000		.16000	.44000	1.35000	55.56		11.85	32.58	a709
.50000	\$1.57000		.17000	2.30000	24.35	68.26		7.39	a710
.34000	.63200	.03000	.07000	1.07940	32.13	58.60	2.78	6.49	153
.31200	.66200	.03000	.08800	1.09200	28.57	60.62	2.75	8.06	154
.40000	1.42500		.10000	1.92500	20.78	74.08		5.19	a711
.30000	1.30500		.20000	1.08500	19.65	70.28		10.07	a712
.60000	1.20000		.10000	1.90000	31.58	63.16		5.26	166
.28000	2.58000			2.87000	10.10	89.90			a713
.33140			1.29250	2.12420	39.14			60.86	139
.65000		.10000	.50000	1.25000	52.00		8.00	40.00	157
1.22250		.15000	.61000	1.98250	61.06		7.56	30.78	156
.20125			.12000	.32125	62.65			37.35	132

b Mining only; other labor aside from mining included in column headed Other.

c Production for 1883 when the price of mining averaged 80 cents per ton (1885, 40 cents per ton).

d Production for 1883 when the price of mining averaged 75 cents per ton (1885, 50 cents per ton).

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

COOKING AND HEATING APPARATUS.

Establishment No.	State.	Description of unit.
175	Illinois	One square cooking range (base outside, oven shelves, back extension, shelf at top, cut feed, tin-lined oven doors, nickel trimmings and panels, polished edges, cast-iron ash-pan, and nickel towel-rack, weighing 260 pounds).
175	do	One cooking range (low closet, incased enameled reservoir, cut feed, tin-lined oven doors, nickel trimmings and panels, polished edges, and nickel towel-rack, weighing 300 pounds).
175	do	One cooking range (incased enameled reservoir and base, cut feed, tin-lined oven doors, oven shelves, nickel panels and trimmings, polished edges, and nickel towel rack, weighing 300 pounds).
176	Kentucky	One cooking stove (four holes, and weighing 326 pounds)
176	do	One cooking stove (medium grade, four hole, No. 7, weighing 258 pounds).
176	do	One cooking stove (common, four hole, No. 7, weighing 175 pounds) ..
176	do	One cooking stove (common, four hole, No. 8, weighing 185 pounds) ..
178	Michigan	One cooking stove (first class, full trimmed, weighing 360 pounds) ..
178	do	One cooking stove (medium grade, weighing 300 pounds)
180	Pennsylvania	One cooking stove (weighing 250 pounds)
175	Illinois	One base-burning heating stove (nickel railings, highly polished edges, and brass urn).
178	Michigan	One base-burning heating stove (first class, nickel trimmings, and weighing 390 pounds).
178	do	One base-burning heating stove (weighing 305 pounds)
175	Illinois	One common heating stove (sliding door, grate, register, and foot rails)
a623	do	One ton first-class, light base-burning heating stoves
185	Ohio	One ton first-class heating stoves
a624	do	One ton first-class heating stoves
188	do	One ton first-class heating stoves
184	do	One ton first-class heating stoves
189	do	One ton first-class heating stoves
191	West Virginia	One ton common heating stoves
172	Illinois	One ton medium grade, light heating stoves
a625	do	One ton heating stoves
186	Ohio	One ton heating stoves
179	New York	One ton first-class cooking and heating stoves
180	do	One ton first-class cooking and heating stoves
181	do	One ton first-class cooking and heating stoves
183	do	One ton first-class cooking and heating stoves
182	do	One ton first-class cooking and heating stoves
a636	Ohio	One ton first-class cooking and heating stoves
167	Illinois	One ton medium grade cooking and heating stoves
171	do	One ton, run of foundry, light cooking and heating stoves
169	do	One ton, run of foundry, cooking and heating stoves
173	do	One ton cooking and heating stoves
174	do	One ton cooking and heating stoves
168	do	One ton cooking and heating stoves
170	do	One ton cooking and heating stoves
187	Ohio	One ton cooking and heating stoves
a623	Illinois	One ton first-class cooking stoves
185	Ohio	One ton first-class cooking stoves
a624	do	One ton first-class cooking stoves
188	do	One ton first-class cooking stoves
a627	do	One ton first-class cooking stoves
191	West Virginia	One ton first-class cooking stoves
189	Ohio	One ton medium grade cooking stoves
a628	do	One ton common cooking stoves
a625	Illinois	One ton cooking stoves
186	Ohio	One ton cooking stoves

COTTON GOODS.

a629	France	One yard sheeting (31½ inches wide, 56 by 64, measuring 2.58 yards to the pound).
a629	do	One yard sheeting (31½ inches wide, 64 by 64, measuring 3.125 yards to the pound).
a630	Georgia	One yard sheeting (36 inches wide, 40 by 40, measuring 3.24 yards to the pound).
a630	do	One yard sheeting (36 inches wide, 44 by 42, measuring 2.21 yards to the pound).

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

COOKING AND HEATING APPARATUS.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$2.70000	\$3.60000	.....	\$1.80000	\$9.10000	40.56	39.56	.....	19.78	175
5.24000	5.50000	.....	2.00000	12.74000	41.13	43.17	.....	15.70	176
5.50000	6.50000	.....	2.00000	14.00000	39.29	46.42	.....	14.29	175
3.89000	3.74000	.....	1.63000	9.26000	42.01	40.39	.....	17.60	176.
2.58000	2.96000	.....	1.29000	6.83000	37.78	43.34	.....	18.88	176
1.38000	1.80000	.....	.87000	4.05000	34.07	44.45	.....	21.48	176
1.20000	1.40000	.....	.67000	3.27000	36.70	42.81	.....	20.49	176
4.26000	5.56000	.....	2.04000	11.86000	36.45	46.49	.....	17.06	178
3.98000	4.72000	.....	1.77000	10.47000	38.01	45.08	.....	16.91	178
4.05000	4.68000	\$1.43000	.85000	10.96000	36.95	42.24	18.05	7.76	180
4.44000	4.70000	.....	1.60000	10.74000	41.34	43.76	.....	14.90	175
6.74000	11.55000	.....	3.74000	22.03000	30.59	52.43	.....	16.98	178
5.12000	6.09000	.....	2.41000	14.22000	36.00	47.05	.....	16.95	178
2.25000	2.65000	.....	1.40000	6.30000	35.71	42.07	.....	22.22	175
56.40000	33.60000	.....	30.00000	120.00000	47.00	28.00	.....	25.00	a623
26.50000	32.50000	.....	26.00000	96.00000	38.02	34.90	.....	27.08	185
37.50000	36.00000	.....	25.50000	99.00000	37.88	36.26	.....	25.76	a624
33.00000	28.00000	.....	29.00000	90.00000	36.67	31.11	.....	32.22	188
35.00000	38.00000	.....	22.00000	95.00000	36.84	40.00	.....	23.16	184
31.00000	36.50000	.....	13.96000	81.86000	38.10	44.86	.....	17.04	189
30.00000	23.00000	.....	18.00000	71.00000	42.26	32.59	.....	25.85	191
42.00000	30.00000	.....	18.00000	90.00000	46.67	33.23	.....	20.00	172
38.62000	34.60000	.....	13.85000	85.07000	43.04	40.68	.....	16.28	a625
49.50000	24.50000	.....	6.00000	80.00000	61.87	30.63	.....	7.50	186
43.28684	29.00000	6.54000	3.38808	82.22492	52.66	35.27	7.95	4.12	179
42.00000	25.50000	4.63304	2.88000	75.01304	56.99	33.99	6.19	3.83	180
36.28131	30.00000	3.06000	5.70000	75.04131	48.36	39.98	4.08	7.58	181
53.31465	.....	4.91303	2.95233	61.18001	87.14	.....	8.03	4.83	183
42.14340	.....	.....	4.88351	547.02691	89.62	.....	.....	10.38	182
40.00000	40.00000	.....	20.00000	100.00000	40.00	40.00	.....	20.00	a626
20.00000	20.00000	.....	20.00000	70.00000	42.86	28.57	.....	28.57	167
20.00000	18.50000	.....	12.00000	50.50000	39.61	36.63	.....	23.76	171
40.00000	40.00000	.....	24.00000	110.00000	41.82	36.36	.....	21.82	169
35.00000	25.00000	7.00000	15.00000	82.00000	42.68	30.49	8.54	18.29	173
36.00000	30.00000	.....	19.00000	79.00000	37.97	37.97	.....	24.06	174
37.00000	30.00000	.....	12.00000	79.00000	46.84	37.07	.....	15.19	168
37.00000	27.00000	.....	26.00000	90.00000	41.11	30.00	.....	28.89	170
35.00000	31.65000	.....	8.15000	74.80000	46.79	42.31	.....	10.90	187
33.50000	34.00000	.....	22.50000	90.00000	37.22	37.78	.....	25.00	a623
31.50800	29.00000	.....	26.00000	86.50000	36.42	33.53	.....	30.05	185
34.50000	29.00000	.....	25.50000	89.00000	38.76	32.59	.....	28.65	a624
33.00000	27.00000	.....	29.00000	89.00000	37.08	30.24	.....	32.58	188
30.00000	22.00000	.....	22.00000	81.00000	37.04	35.80	.....	27.16	a627
35.00000	26.00000	.....	19.00000	80.00000	43.75	32.50	.....	23.75	191
31.00000	31.00000	.....	8.06000	70.06000	44.25	44.25	.....	11.50	189
24.00000	17.80000	.....	11.80000	53.60000	44.78	33.21	.....	22.01	a628
31.38800	29.35000	.....	12.16000	72.81000	43.07	40.31	.....	16.62	a625
40.34800	24.50000	.....	6.00000	70.84000	56.95	34.59	.....	8.46	186

COTTON GOODS.

\$0.00850	\$0.04801	.....	\$0.00847	\$0.00598	14.40	72.76	.....	12.84	a629
.00850	.05346	.....	.00847	.07143	13.30	74.84	.....	11.86	a629
.00864	.03581	\$0.00044	.00415	.04004	17.62	73.02	.90	8.46	a630
.01208	.05248	.00065	.00005	.07184	17.62	73.05	.91	8.42	a630

b Not including material.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

COTTON GOODS—Continued.

Establishment No.	State.	Description of unit.
a680	Georgia.....	One yard sheeting (36 inches wide, 44 by 42, measuring 3.08 yards to the pound).
224	New York.....	One yard sheeting (36 inches wide, 44 by 48, measuring 4.5 yards to the pound).
248	Virginia.....	One yard sheeting (36 inches wide, 44 by 48, measuring 4.06 yards to the pound).
247	do.....	One yard sheeting (36 inches wide, 44 by 48, measuring 4.06 yards to the pound).
244	South Carolina.....	One yard sheeting (36 inches wide, 48 by 44, measuring 2.99 yards to the pound).
244	do.....	One yard sheeting (36 inches wide, 48 by 44, measuring 3.01 yards to the pound).
246	Virginia.....	One yard sheeting (36 inches wide, 44 by 44, measuring 4 yards to the pound).
244	South Carolina.....	One yard sheeting (36 inches wide, 48 by 40, measuring 3.12 yards to the pound).
227	North Carolina.....	One yard sheeting (36 inches wide, 46 by 46, measuring 4.5 yards to the pound).
199	Georgia.....	One yard sheeting (36 inches wide, 50 by 50, measuring 4.01 yards to the pound).
199	do.....	One yard sheeting (36 inches wide, 50 by 50, measuring 3.6 yards to the pound).
a631	Maine.....	One yard sheeting (36 inches wide, 52 by 52, measuring 3.93 yards to the pound).
a629	France.....	One yard sheeting (36 inches wide, 56 by 64, measuring 3.86 yards to the pound).
a630	Georgia.....	One yard sheeting (40 inches wide, 48 by 48, measuring 2.49 yards to the pound).
a630	do.....	One yard sheeting (40 inches wide, 56 by 56, measuring 3.18 yards to the pound).
231	New York.....	One yard sheeting (40½ inches wide, 88 by 96, measuring 2.88 yards to the pound).
230	do.....	One yard sheeting (36 inches wide, No. 22 yarn, measuring 3.6 yards to the pound).
230	do.....	One yard sheeting (39 inches wide, No. 22 yarn, measuring 3.33 yards to the pound).
230	do.....	One yard sheeting (40 inches wide, No. 31 yarn, measuring 3 yards to the pound).
230	do.....	One yard sheeting (48 inches wide, No. 22 yarn, measuring 2.777 yards to the pound).
230	do.....	One yard sheeting (58 inches wide, No. 22 yarn, measuring 2.5 yards to the pound).
230	do.....	One yard sheeting (77 inches wide, No. 22 yarn, measuring 1.75 yards to the pound).
230	do.....	One yard sheeting (86 inches wide, No. 22 yarn, measuring 1.538 yards to the pound).
230	do.....	One yard sheeting (96 inches wide, No. 22 yarn, measuring 1.35 yards to the pound).
a632	Alabama.....	One yard sheeting (36 inches wide, measuring 3.29 yards to the pound).
a632	do.....	One yard sheeting (31½ inches wide, measuring 3.31 yards to the pound).
a633	Georgia.....	One yard sheeting (36 inches wide, measuring 3.75 yards to the pound).
a633	do.....	One yard sheeting (36 inches wide, measuring 3.4 yards to the pound).
207	Maine.....	One yard sheeting (40 inches wide, measuring 3.80 yards to the pound).
211	Maryland.....	One yard sheeting (36 inches wide, measuring 2.84 yards to the pound).
214	Massachusetts.....	One yard sheeting (36 inches wide, measuring 2.84 yards to the pound).
218	do.....	One yard sheeting (40 inches wide, measuring 3.5 yards to the pound).
215	do.....	One yard sheeting (40 inches wide, measuring 3.5 yards to the pound).
217	do.....	One yard sheeting (40 inches wide, measuring 3.5 yards to the pound).
216	do.....	One yard sheeting (40 inches wide, measuring 3.5 yards to the pound).
226	New Hampshire.....	One yard sheeting (36 inches wide, measuring 2.85 yards to the pound).
a634	South Carolina.....	One yard sheeting (36 inches wide, measuring 2.85 yards to the pound).
238	North Carolina.....	One yard sheeting (36 inches wide, measuring 3 yards to the pound).
a635	South Carolina.....	One yard sheeting (36 inches wide, measuring 3 yards to the pound).
a634	do.....	One yard sheeting (36 inches wide, measuring 4 yards to the pound).
193	Connecticut.....	One yard print cloth (28 inches wide, 64 by 64, measuring 7 yards to the pound).
a631	Maine.....	One yard print cloth (28 inches wide, 64 by 64, measuring 7 yards to the pound).
a636	do.....	One yard print cloth (28 inches wide, 64 by 64, measuring 7 yards to the pound).

a The wages of employees in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 286, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

COTTON GOODS—Continued.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$.00009	\$.03770	\$.00046	\$.00427	\$.05152	17.65	73.17	.89	8.29	a630
.00014	.02644	.00088	.00565	.04211	21.71	62.79	2.09	13.41	234
.00453	.02801	.00124	.00445	.04223	20.19	66.33	2.94	10.54	248
.00842	.02893	.00124	.00291	.04150	20.29	69.71	2.99	7.01	247
.00889	.03081	.00087	.00470	.05307	17.89	72.03	1.57	8.51	244
.00979	.03954	.00087	.00466	.05486	17.85	72.07	1.59	8.49	244
.00954	.03090	.....	.00759	.04903	19.86	64.33	.....	15.81	246
.00949	.03814	.00084	.00449	.05296	17.92	72.02	1.58	8.48	244
b.01690	.02460	.00290	.00580	.05020	33.67	49.00	5.78	11.55	237
.00755	.03109	.00072	.00305	.04241	17.80	73.31	1.70	7.19	199
.00833	.03463	.00080	.00340	.04816	19.37	71.91	1.66	7.06	199
.01320	.03532	.....	.00145	.04997	26.42	70.68	.....	2.90	a631
.00331	.04574	.....	.00741	.06146	18.52	74.42	.....	12.06	a629
.01126	.04667	.00057	.00541	.06391	17.62	73.02	.89	8.47	a630
.00882	.03659	.00045	.00423	.05009	17.60	73.06	.90	8.44	a630
.03434	.04630	.00220	.00350	.08634	39.77	53.63	2.55	4.05	231
.01945	.03490	.00108	.00908	.06451	30.15	54.10	1.67	14.08	230
.02100	.03770	.00110	.00980	.06960	30.17	54.17	1.58	14.08	230
.02600	.04660	.00130	.01210	.08600	30.23	54.19	1.51	14.07	230
.02520	.04524	.00132	.01176	.08352	30.17	54.17	1.58	14.08	230
.02800	.05026	.00146	.01307	.09279	30.18	54.16	1.57	14.09	230
.04000	.07180	.00209	.01867	.13256	30.18	54.16	1.58	14.08	230
.04550	.08168	.00283	.02123	.15124	30.09	54.00	1.87	14.04	230
.05180	.09299	.00271	.02417	.17167	30.17	54.17	1.58	14.08	230
.01114	.03587	.00074	.00271	.05046	22.08	71.08	1.47	5.37	a632
.01049	.03575	.00073	.00270	.04967	21.12	71.97	1.47	5.44	a632
.00613	.02925	.00104	.00294	.05396	15.58	74.31	2.64	7.47	a633
.00676	.03285	.00114	.00324	.04399	15.37	74.68	2.59	7.36	a633
.02010	.03390	.....	.00740	.06140	32.74	55.21	.....	12.05	207
.01640	.04094	.00500	.00106	.06340	25.87	64.57	7.89	1.67	211
.01396	.04317	.....	.00614	.06227	20.81	69.33	.....	9.86	214
.02474	.03969	.....	.00462	.06906	35.83	57.48	.....	6.69	218
.02229	.03820	.....	.00314	.06363	35.03	60.03	.....	4.94	215
.02497	.04043	.....	.00318	.06858	36.41	58.95	.....	4.64	217
.02572	.03963	.....	.00449	.06984	36.83	56.74	.....	6.43	216
.01269	.04300	.00046	.00300	.05915	21.45	72.70	.78	5.07	226
.00616	.04010	.....	.00275	.05101	16.00	78.61	.....	5.39	a634
.00937	.04101	.00096	.00414	.05548	16.89	73.92	1.73	7.46	238
.00794	.04132	.....	.00255	.05181	15.33	79.75	.....	4.92	a635
.00883	.02868	.....	.00414	.04185	21.20	68.86	.....	9.94	a634
.00972	.01929	.00130	.00381	.03412	28.49	56.53	3.81	11.17	192
.00960	.02010	.....	.00110	.03080	31.17	65.26	.....	3.57	a631
.01110	.01740	.....	.00150	.03000	37.00	58.00	.....	5.00	a636

b The high labor cost of a yard of sheeting in this establishment is due to the fact that the mill is a new one which had been in operation only two months when visited by the agent of the Bureau, and the efficiency of the employees is less, therefore, than in those long established.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 296, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

COTTON GOODS—Continued.

Establishment No.	State.	Description of unit.
219	Massachusetts.....	One yard print cloth (28 inches wide, 64 by 64, measuring 7 yards to the pound).
220	...do.....	One yard print cloth (28 inches wide, 64 by 64, measuring 7 yards to the pound).
227	New Hampshire.....	One yard print cloth (28 inches wide, 64 by 64, measuring 7 yards to the pound).
245	Vermont.....	One yard print cloth (28 inches wide, 56 by 60, measuring 8 yards to the pound).
227	New Hampshire.....	One yard print cloth (30 inches wide, 68 by 72, measuring 6 yards to the pound).
201	Great Britain.....	One yard print cloth (32 inches wide, 64 by 64, measuring 8 yards to the pound).
227	New Hampshire.....	One yard print cloth (35 inches wide, 68 by 72, measuring 5 yards to the pound).
a637	Georgia.....	One yard shirting (30 inches wide, measuring 5.099 yards to the pound).
a633	...do.....	One yard shirting (31½ inches wide, measuring 4.6 yards to the pound).
a635	South Carolina.....	One yard shirting (31½ inches wide, measuring 3.61 yards to the pound).
233	New York.....	One yard shirting (36 inches wide, 88 by 96, measuring 3.02 yards to the pound).
208	Maine.....	One yard shirting (40 inches wide, number 22 yarn, measuring 3.36 yards to the pound).
a637	Georgia.....	One yard shirting (34½ inches wide, measuring 5.32 yards to the pound).
198	...do.....	One yard cotton cloth (27 inches wide, 40 by 40, measuring 4.73 yards to the pound).
196	France.....	One yard cotton cloth (31½ inches wide, 56 by 64, measuring 3.125 yards to the pound).
198	Georgia.....	One yard cotton cloth (31½ inches wide, 48 by 46, measuring 3.65 yards to the pound).
198	...do.....	One yard cotton cloth (36 inches wide, 48 by 46, measuring 3.01 yards to the pound).
198	Connecticut.....	One yard cotton cloth (39 inches wide, 68 by 76, measuring 4.5 yards to the pound).
198	...do.....	One yard cotton cloth (39 inches wide, 80 by 72, measuring 4.25 yards to the pound).
198	...do.....	One yard cotton cloth (40 inches wide, 80 by 80, measuring 3.75 yards to the pound).
193	...do.....	One yard cotton cloth (44 inches wide, 68 by 76, measuring 3.95 yards to the pound).
193	...do.....	One yard cotton cloth (44 inches wide, 80 by 80, measuring 3.5 yards to the pound).
a637	Georgia.....	One yard cotton cloth (36 inches wide, measuring 4.079 yards to the pound).
a638	...do.....	One yard cotton cloth (measuring 3.93 yards to the pound).
232	New York.....	One yard cotton cloth (unbleached, 48 by 48 picks, measuring 5.11 yards to the pound).
a639	Alabama.....	One yard cotton cloth.
a640	Georgia.....	One yard cotton cloth.
a641	Louisiana.....	One yard cotton cloth.
a642	Mississippi.....	One yard cotton cloth.
194	Delaware.....	One pound cotton cloth (unbleached, number 33 yarn).
244	South Carolina.....	One yard drilling (27 inches wide, 42 by 40, measuring 4.74 yards to the pound).
a630	Georgia.....	One yard drilling (29 inches wide, 70 by 48, measuring 2.82 yards to the pound).
a630	...do.....	One yard drilling (30½ inches wide, 70 by 48, measuring 2.84 yards to the pound).
a634	South Carolina.....	One yard drilling (30½ inches wide, 70 by 48, measuring 2.84 yards to the pound).
a635	...do.....	One yard drilling (30½ inches wide, 72 by 44, measuring 2.9 yards to the pound).
244	...do.....	One yard drilling (30½ inches wide, 72 by 44, measuring 2.9 yards to the pound).
244	...do.....	One yard drilling (30½ inches wide, 48 by 43, measuring 3.7 yards to the pound).
198	Georgia.....	One yard drilling (31½ inches wide, 62 by 48, measuring 3.08 yards to the pound).
199	...do.....	One yard drilling (31½ inches wide, 72 by 50, measuring 3.01 yards to the pound).
244	South Carolina.....	One yard drilling (36 inches wide, 72 by 44, measuring 2.39 yards to the pound).

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 225, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

COTTON GOODS—Continued.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$. 01035	\$. 01714	.....	\$. 00357	\$. 03106	33. 32	55. 18	.....	11. 50	219
. 01000	. 01643	.....	. 00500	. 03143	31. 82	52. 27	.....	15. 91	220
. 00999	. 01712	.....	. 00171	. 02882	34. 06	59. 41	.....	5. 98	227
. 01000	. 01610	.....	. 00180	. 02790	35. 84	57. 71	.....	6. 45	245
. 01174	. 01998	.....	. 00199	. 03371	34. 83	59. 27	.....	5. 90	227
. 00802	. 01618	.....	. 00294	. 02714	29. 55	59. 02	.....	10. 83	201
. 01408	. 02398	.....	. 00240	. 04046	34. 80	59. 27	.....	5. 93	227
. 00664	. 02356	\$. 00077	. 00155	. 03252	20. 41	72. 45	2. 37	4. 77	a637
. 00499	. 02428	. 00084	. 00249	. 03290	15. 31	74. 48	2. 58	7. 63	a633
. 00659	. 00438	.....	. 00212	. 04309	15. 29	79. 79	.....	4. 02	a635
. 02710	. 04870	. 00130	. 00510	. 08220	32. 97	59. 25	1. 58	6. 20	233
. 01979	. 03909	.....	. 00512	. 06390	31. 12	60. 83	.....	8. 05	208
. 00635	. 02243	. 00054	. 00149	. 05081	20. 61	72. 80	1. 75	4. 84	a637
. 00613	. 02628	. 00048	. 00254	. 03543	17. 30	74. 17	1. 35	7. 18	198
. 00983	. 05616	.....	. 00654	. 07253	13. 55	77. 43	.....	9. 02	196
. 00810	. 03406	. 00082	. 00320	. 04598	17. 61	74. 08	1. 35	6. 96	198
. 00963	. 04131	. 00075	. 00399	. 05568	17. 29	74. 19	1. 35	7. 17	198
. 01513	. 03001	. 00203	. 00592	. 05309	28. 49	56. 53	3. 83	11. 15	193
. 01002	. 03177	. 00215	. 00626	. 05620	28. 50	56. 53	3. 83	11. 14	193
. 01815	. 03601	. 00243	. 00710	. 06369	28. 50	56. 54	3. 81	11. 15	193
. 01724	. 03419	. 00231	. 00673	. 06047	28. 51	56. 54	3. 82	11. 13	193
. 01945	. 03858	. 00261	. 00760	. 06824	28. 50	56. 53	3. 83	11. 14	193
. 00827	. 02929	. 00079	. 00194	. 04029	20. 53	72. 70	1. 96	4. 81	a637
. 00802	. 03465	.....	.....	. 04267	18. 80	81. 20	.....	.....	a638
. 01017	. 02390	.....	. 00674	. 04081	24. 92	58. 56	.....	16. 52	232
. 00886	. 02364	.....	.....	. 03250	27. 26	72. 74	.....	.....	a639
. 02000	. 03500	.....	.....	. 05590	36. 36	63. 64	.....	.....	a640
. 01750	. 03500	.....	.....	. 05250	33. 33	66. 67	.....	.....	a641
. 01099	. 03731	.....	.....	. 04830	22. 75	77. 25	.....	.....	a642
. 11250	. 12000	.....	. 01940	. 25190	44. 67	47. 63	.....	7. 70	194
. 00622	. 02611	. 00055	. 00296	. 03484	17. 85	72. 07	1. 58	8. 50	244
. 00993	. 04114	. 00051	. 00476	. 05634	17. 62	73. 08	. 90	8. 45	a630
. 00998	. 04090	. 00050	. 00471	. 05599	17. 65	73. 05	. 89	8. 41	a630
. 00822	. 04036	.....	. 00276	. 06134	16. 01	78. 62	.....	5. 38	a634
. 00817	. 04275	.....	. 00284	. 05366	15. 26	79. 81	.....	4. 93	a635
. 01016	. 04104	. 00090	. 00484	. 05694	17. 24	72. 08	1. 58	8. 50	244
. 00796	. 03217	. 00070	. 00380	. 04463	17. 84	72. 08	1. 57	8. 51	244
. 00941	. 04087	. 00074	. 00389	. 05441	17. 29	74. 20	1. 36	7. 15	198
. 01107	. 04142	. 00096	. 00406	. 05751	19. 25	72. 02	1. 67	7. 06	199
. 01233	. 04980	. 00109	. 00588	. 06910	17. 84	72. 07	1. 58	8. 51	244

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

COTTON GOODS—Concluded.

Establishment No.	State.	Description of unit.
a630	Georgia.....	One yard drilling (36½ inches wide, 68 by 52, measuring 2.43 yards to the pound).
a630	...do.....	One yard drilling (37 inches wide, 70 by 48, measuring 2.36 yards to the pound).
a630	...do.....	One yard drilling (37 inches wide, 83 by 46, measuring 1.6 yards to the pound).
a630	...do.....	One yard drilling (46 inches wide, 70 by 42, measuring 2.002 yards to the pound).
a630	...do.....	One yard drilling (51 inches wide, 70 by 42, measuring 1.79 yards to the pound).
a630	...do.....	One yard drilling (58 inches wide, 70 by 42, measuring 1.58 yards to the pound).
a635	South Carolina.....	One yard drilling (26 inches wide, measuring 3.34 yards to the pound).
a635	do.....	One yard drilling (30 inches wide, measuring 3.17 yards to the pound).
a632	Alabama.....	One yard drilling (measuring 3.15 yards to the pound).....
a633	Georgia.....	One yard drilling (measuring 3.05 yards to the pound).....
a630	do.....	One yard duck (38 inches wide, 88 by 28, measuring 1.79 yards to the pound).
a630	do.....	One yard duck (46 inches wide, 83 by 28, measuring 1.49 yards to the pound).
a630	do.....	One yard duck (51 inches wide, 83 by 28, measuring 1.32 yards to the pound).
a630	do.....	One yard duck (57 inches wide, 83 by 28, measuring 1.19 yards to the pound).
212	Maryland.....	One yard duck (28 by 36 picks, measuring 2 yards to the pound).....
213	do.....	One yard duck (22 by 36 picks, measuring 1 yard to the pound).....
222	Massachusetts.....	One yard calico (64 by 64 picks, measuring 7 yards to the pound).....
228	New Hampshire.....	One yard calico (64 by 64 picks, measuring 7 yards to the pound).....
235	New York.....	One yard calico (64 by 64 picks, measuring 7 yards to the pound).....
a643	Pennsylvania.....	One yard calico (64 by 64 picks, measuring 7 yards to the pound).....
241	North Carolina.....	One yard plaid (27 inches wide, 40 by 40, measuring 4 yards to the pound).
239	do.....	One yard plaid (27 inches wide, 44 by 44, measuring 4.25 yards to the pound).
240	do.....	One yard plaid (27 inches wide, 44 by 44, measuring 4.58 yards to the pound).
249	Virginia.....	One yard plaid (27 inches wide, 44 by 44, measuring 4.25 yards to the pound).
243	Pennsylvania.....	One yard gingham (26½ inches wide, 45 by 54, measuring 6.8 yards to the pound).
a620	France.....	One yard gingham (31½ inches wide, 56 by 60, measuring 4.55 yards to the pound).
209	Maine.....	One yard gingham (measuring 6.12 yards to the pound).....
195	Delaware.....	One pound colored family cloth.....
223	Massachusetts.....	One pound nainsook check.....
226	New Hampshire.....	One seamless cotton bag (having a capacity of two bushels, and weighing one pound).
a644	New York.....	One pair cotton blankets (the pair weighing 6 pounds).....
a645	France.....	One pound cotton yarn, number 33 (English).....
197	do.....	One pound cotton yarn, number 32 (English).....
a646	do.....	One pound cotton yarn, number 32 (English).....
203	Great Britain.....	One pound cotton yarn, number 40.....
206	Italy.....	One pound cotton yarn, number 16 (English).....
242	North Carolina.....	One pound cotton yarn, number 20, two-ply.....
240	do.....	One pound cotton yarn, number 13.....
236	New York.....	One pound cotton hosiery yarn, numbers 10 to 30.....

FOOD PREPARATION.^c

273	Ohio.....	One barrel fancy family flour (roller process).....
a647	do.....	One barrel fancy family flour (roller process).....
a648	do.....	One barrel fancy family flour (roller process).....
a649	do.....	One barrel fancy family flour (roller process).....
a650	do.....	One barrel fancy family flour (roller process).....

^a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

^b For printing only.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

COTTON GOODS—Concluded.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Admini- stration.	Other.	Total.	Labor.	Materials.	Admini- stration.	Other.	
\$. 01151	\$. 04783	\$. 00059	\$. 00553	\$. 06545	17.56	73.08	.90	8.45	a630
.01186	.04917	.00061	.00569	.06723	17.61	73.03	.91	8.45	a630
.01752	.07263	.00090	.00840	.09945	17.63	73.04	.90	8.44	a630
.01402	.06811	.00072	.00672	.07957	17.62	73.03	.90	8.45	a630
.01561	.06490	.00080	.00750	.08881	17.58	73.08	.90	8.44	a630
.01770	.07336	.00091	.00848	.10045	17.63	73.03	.90	8.44	a630
.00683	.03706	.....	.00229	.04618	14.79	80.25	.....	4.96	a635
.00753	.03905	.....	.00241	.04899	15.37	79.71	.....	4.92	a635
.01162	.03755	.00077	.00283	.05277	22.02	71.16	1.46	5.36	a632
.00724	.03650	.00127	.00351	.04861	14.90	75.27	2.61	7.22	a633
.01567	.06500	.00080	.00732	.08899	17.61	73.04	.90	8.45	a630
.01887	.07793	.00096	.00902	.10678	17.67	72.98	.90	8.45	a630
.02128	.06821	.00109	.01020	.12078	17.62	73.03	.90	8.45	a630
.02350	.00745	.00121	.01127	.13343	17.61	73.03	.91	8.45	a630
.01230	.00020	.00320	.01890	.02630	14.21	64.31	3.42	18.06	212
.02340	.12450	.00250	.01750	.17790	13.78	69.08	1.40	9.84	213
.02690	.01948	.....	.00147	.04404	52.43	44.23	.....	8.34	222
.01433	.02480	.....	.00569	.04427	32.48	50.02	.....	11.50	228
.01355	.02115	.00110	.00123	.03703	36.59	57.11	2.97	3.33	235
.00520	.08000	.00100	.00600	.09320	13.27	76.53	2.55	7.65	a643
.01290	.09620	.00140	.00290	.05330	24.02	67.92	2.62	5.44	241
.00840	.03400	.00120	.00250	.04670	18.00	74.09	2.56	5.35	239
.00997	.08528	.....	.00032	.04452	20.15	79.13	.....	.72	240
.01579	.00053	.00251	.00167	.05060	31.27	60.45	4.97	3.31	249
.02153	.01648	.00370	.00648	.04819	44.68	34.20	7.67	13.45	243
.01434	.07813	.....	.01339	.10576	13.46	73.88	.....	12.66	a639
.02730	.02540	.....	.00860	.06120	44.45	41.50	.....	14.05	209
.06470	.16400	.....	.03500	.26370	29.85	57.81	.....	12.34	195
.06500	.15000	.....	.02500	.30000	31.67	60.00	.....	8.33	223
.04171	.12160	.00131	.00143	.16603	25.12	73.24	.78	.86	226
.35571	.76555	.....	.06256	1.18362	30.05	64.67	.....	5.28	a644
.02674	.14700	.....	.03597	.21271	12.57	69.11	.....	18.32	a645
.02525	.13160	.....	.06050	.16735	13.48	70.24	.....	16.28	167
.02727	.14700	.....	.06449	.20876	13.06	70.42	.....	16.52	a646
.01943	.13620	.00110	.....	.14373	13.52	65.72	.70	.....	203
.01980	.13160	.....	.01261	.16351	11.81	80.48	.....	7.71	206
.02020	.11410	.....	.01360	.14740	13.77	77.41	.....	8.82	242
.01981	.11518	.00418	.00380	.14177	13.13	81.24	2.93	2.66	240
.02410	.13197	.00250	.01780	.17637	13.66	74.83	1.42	10.09	236

FOOD PREPARATION. c

\$. 11000	\$. 20260	.....	\$. 52333	\$. 83583	2.28	86.90	.....	10.82	273
.19000	3.98000	.....	.45000	4.62000	4.11	86.16	.....	9.74	a647
.39000	4.02000	.....	.500C0	4.72000	4.24	85.17	.....	10.59	a648
.35000	3.71250	.....	.45000	4.41250	5.66	84.14	.....	10.20	a649
.30000	4.01000	.....	.48000	4.67000	4.28	85.87	.....	9.85	a650

c In Ohio, Illinois, West Virginia, and Indiana the value of middlings, bran, etc., has been deducted from the material.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

FOOD PREPARATION—Concluded.

Establishment No.	State.	Description of unit.
268	Illinois	One barrel fancy family flour (roller process)
2651	do	One barrel fancy family flour (roller process)
257	do	One barrel fancy family flour (roller process)
378	West Virginia	One barrel fancy family flour (roller process)
372	Ohio	One barrel fancy family flour
274	do	One barrel fancy family flour
234	Illinois	One barrel high-grade family flour (roller process)
258	do	One barrel high-grade family flour (roller process)
256	do	One barrel high-grade family flour (roller process)
255	do	One barrel high-grade family flour (roller process)
260	do	One barrel high-grade family flour (roller process)
257	do	One barrel high-grade family flour (roller process)
261	do	One barrel high-grade family flour (roller process)
262	do	One barrel high-grade family flour (roller process)
264	Indiana	One barrel high-grade family flour (roller process)
266	Minnesota	One barrel high-grade family flour (roller process)
2652	Georgia	One barrel family flour
275	Ohio	One barrel dairy salt (280 pounds)
277	do	One barrel dairy salt (280 pounds)
276	do	One barrel dairy salt (280 pounds)
2653	West Virginia	One barrel dairy salt (280 pounds)

GLASS.

290	Ohio	One dozen cup-foot goblets
2654	do	One dozen cup-foot goblets
298	do	One dozen common goblets
2655	do	One dozen plain blown glass tumblers
2656	do	One gross flint pint flasks
301	Pennsylvania	One gross flint pint flasks
304	do	One gross flint pint flasks
315	West Virginia	One gross flint pint flasks
2656	Ohio	One gross flint half-pint flasks
315	West Virginia	One gross flint half-pint flasks
293	New Jersey	One box (50 feet) 12 x 28 inches, single strength window-glass
295	Ohio	One box (50 feet) 8 x 10 inches, single strength window-glass
309	Pennsylvania	One box (50 feet) 12 x 28 inches, single strength window-glass
308	do	One box (50 feet) 12 x 28 inches, single strength window-glass
2657	Belgium	One box (50 feet) average size, single strength window-glass
288	Illinois	One box (50 feet) average size, single strength window-glass
296	Ohio	One box (50 feet) average size, single strength window-glass
295	do	One box (50 feet) average size, single strength window-glass
294	do	One gross half-gallon Mason fruit jars (without trimmings)
280	Kentucky	One gross quart Mason fruit jars (without trimmings)
305	Pennsylvania	One gross quart Mason fruit jars (without trimmings)
300	do	One gross flint 8-ounce Philadelphia oval bottles
302	do	One gross flint 8-ounce Philadelphia oval bottles
303	do	One gross flint 8-ounce Philadelphia oval bottles
306	do	One gross quart beer bottles
307	do	One gross quart beer bottles
292	New Jersey	One gross 2-ounce green glass prescription phials
230	do	One gross 2-ounce green glass prescription phials
291	do	One gross 4-ounce green glass prescription phials
2656	Ohio	One gross flint, 8-ounce, French, square prescription bottles
2656	do	One gross flint, 16-ounce, French, square prescription bottles
312	Pennsylvania	One dozen No. 2, crimp-top, lime, lamp chimneys
311	do	One dozen No. 2, plain, lime, lamp chimneys
310	do	One square foot, quarter-inch plate glass
313	do	One table set (sugar bowl and cover, butter dish and cover, cream jug and cover, and spoon glass).

JUTE GOODS.

317	New Jersey	One pound jute yarn, medium grade
-----	------------	-----------------------------------

a The wages of employees in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

FOOD PREPARATION—Concluded.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$0. 16000	\$3. 29500		\$0. 41750	\$3. 87250	4. 13	85. 09		10. 78	268
.05500	3. 72000		.38250	4. 15750	1. 32	89. 48		9. 20	a651
.15000	3. 80000		.44000	4. 39000	3. 42	86. 56		10. 02	257
.25000	3. 85000		.47000	4. 57000	5. 47	84. 25		10. 28	278
.20000	4. 24000		.35000	4. 79000	4. 18	88. 52		7. 30	272
.16000	3. 96000		.35000	4. 50000	3. 55	88. 67		7. 78	274
.20000	3. 32000		.46500	3. 98500	5. 02	83. 31		11. 67	254
.12000	3. 01300		.48000	3. 61300	3. 32	83. 89		13. 29	258
.20000	3. 61000		.34000	4. 15000	4. 82	86. 99		8. 19	256
.10000	3. 80000		.32000	4. 22000	2. 37	90. 05		7. 58	255
.18000	3. 48750		.42000	4. 08750	4. 40	85. 32		10. 28	260
.12000	3. 61000		.37000	4. 10000	2. 93	88. 05		9. 02	257
.20000	4. 03000		.56000	4. 79000	4. 18	84. 13		11. 69	261
.20000	3. 35000		.40000	3. 95000	5. 06	84. 81		10. 13	262
.20000	3. 97000		.47000	4. 64000	4. 31	85. 56		10. 13	264
.14000	4. 00000	\$0. 03000	.08000	4. 25000	3. 28	94. 12	\$0. 71	1. 89	266
.25000	5. 20000			5. 45000	4. 59	95. 41			a652
.16500			.45500	.62000	26. 62			73. 38	275
.14000			.48000	.62000	22. 58			77. 42	277
.17000			.52250	.69250	24. 55			75. 45	276
.17000			.56000	.73000	23. 29			76. 71	a653

GLASS.

\$0. 18500	b\$0. 22500		\$0. 03500	\$0. 44500	41. 57	50. 57		7. 86	299
.17000	b. 28000			.43000	39. 53	60. 47			a654
.16000	b. 18000			.28000	35. 71	64. 29			298
.23000	b. 20000		.10000	.53000	43. 39	37. 74		18. 87	a655
.90000	b2. 25000		.50000	3. 65000	24. 66	61. 65		13. 69	a656
1. 45500	.67080		.99190	3. 11770	46. 67	21. 52		31. 81	301
1. 54340	.93872		.66880	3. 15092	48. 98	29. 79		21. 23	304
1. 80000	b2. 02500		.54000	3. 64500	29. 68	55. 55		14. 82	315
.65000	b1. 35000		.40000	2. 40900	27. 08	56. 25		16. 67	a656
.81000	b1. 37500		.38000	2. 56500	31. 59	53. 60		14. 81	315
1. 00000	.90000		.10000	2. 00000	50. 00	45. 00		5. 00	293
.94500	.58000	\$0. 12000	.29230	1. 93780	48. 78	29. 94	6. 19	15. 09	295
1. 15000	.43000		.55000	2. 13000	53. 99	20. 19		25. 82	309
1. 08000	.42400		.68800	2. 20200	49. 50	19. 26		31. 24	308
.54000	.12500		.50000	1. 18500	46. 35	10. 72		42. 93	a657
1. 48900	.29850		.56430	2. 34280	63. 17	12. 74		24. 09	288
1. 40158	.33258		.43301	2. 16715	64. 68	15. 34		19. 98	296
1. 12780	.58990	.12000	.29230	2. 12080	53. 17	27. 39	5. 06	18. 78	295
1. 50000	1. 74000		2. 46000	5. 70000	26. 31	30. 53		43. 16	294
2. 56400	.88400		1. 18300	4. 62100	55. 26	19. 13		25. 60	289
2. 10000	1. 15000		1. 57000	4. 82000	43. 57	22. 86		32. 57	305
1. 26000	.37200		.58700	2. 21900	56. 78	16. 77		26. 45	300
1. 31000	.38100		.57500	2. 26800	57. 81	16. 81		25. 38	302
.97780	.44010		.59480	2. 01250	48. 57	21. 87		29. 56	303
3. 10000	1. 23000		1. 60000	5. 93000	52. 28	20. 74		26. 98	306
2. 35000	1. 31300		1. 65000	5. 31300	44. 23	24. 71		31. 06	307
.79000	.40000			1. 10000	63. 64	36. 36			292
.78000	.40000			1. 18000	66. 10	33. 90			290
.88000	.54000		.08000	1. 50000	58. 67	36. 00		5. 33	291
.86000	b1. 35000		.28000	2. 45000	34. 70	55. 10		10. 20	a656
1. 43000	b2. 92000		.50000	4. 85000	29. 48	60. 21		10. 31	a656
.15500	.04710		.05200	.25410	61. 00	18. 54		20. 46	312
.18000	.05000		.02000	.25000	72. 00	20. 00		8. 00	311
.37970	.09450	.04750	.14840	.66110	56. 07	14. 29	7. 19	22. 45	310
.08000	.05500		.09000	.23500	38. 30	23. 40		38. 30	313

JUTE GOODS.

\$0. 02000	\$0. 03750			\$0. 05750	34. 78	65. 22			317
------------	------------	--	--	------------	--------	--------	--	--	-----

• All other labor except skilled and all expenses except package are included in material.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 255, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

LEATHER.

Estab- lish- ment No.	State.	Description of unit.
324	Delaware	One dozen Tampico morocco skins
323	do	One dozen Tampico morocco skins
322	do	One dozen East India morocco skins
329	Pennsylvania	One square foot Tampico morocco
329	do	One square foot Patna morocco
329	do	One square foot Curacao morocco
328	do	One square foot Brazilian morocco
330	do	One pound finished harness leather

LIQUORS AND BEVERAGES. ^a

334	Illinois	One barrel beer (31½ gallons)
332	do	One barrel beer (31½ gallons)
325	do	One barrel beer (31½ gallons)
6658	do	One barrel beer (31½ gallons)
340	Ohio	One barrel beer (31½ gallons)
341	do	One barrel beer (31½ gallons)
339	do	One barrel beer (31½ gallons)
6659	do	One barrel beer (31½ gallons)
6660	Pennsylvania	One barrel beer (31½ gallons)
6661	West Virginia	One barrel beer (31½ gallons)
6662	do	One barrel beer (31½ gallons)
338	Illinois	One gallon high wine
6663	do	One gallon high wine
6664	do	One gallon high wine
336	do	One gallon high wine
6665	do	One gallon high wine
327	do	One gallon high wine
6663	do	One gallon rye whisky
6666	Ohio	One gallon rye whisky
6667	do	One gallon rye whisky
342	do	One gallon rye whisky
6666	do	One gallon Bourbon whisky
6667	do	One gallon Bourbon whisky
342	do	One gallon sweet-mash Bourbon whisky

LUMBER.

346	Illinois	One thousand feet white-pine lumber
345	do	One thousand feet white pine lumber
6668	New Hampshire	One thousand feet best pine lumber
349	West Virginia	One thousand feet poplar lumber
350	do	One thousand feet poplar lumber
6669	do	One thousand feet poplar lumber
6670	do	One thousand feet poplar lumber
349	do	One thousand feet white-oak lumber
350	do	One thousand feet white-oak lumber
6669	do	One thousand feet white-oak lumber
6670	do	One thousand feet white-oak lumber
346	Illinois	One complete window-sash
348	do	One pair complete window-blinds
346	do	One pine panel door

MACHINES AND MACHINERY.

365	Pennsylvania	One sheeting loom
354	Illinois	One sewing-machine (two drawers, cover and drop-leaf, all attach- ments). ^c
6747	do	One sewing-machine (two drawers, cover and drop-leaf, all attach- ments). ^d
6748	do	One sewing-machine (two drawers, cover and drop-leaf, all attach- ments). ^e

^a The revenue tax (92½ cents per barrel on beer and 90 cents per gallon on distilled liquors) and the value of refuse and the saving of tax on fractional gallons of spirits are not included.

^b The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

LEATHER.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$2. 00000	\$14. 42000	.....	\$1. 08000	\$17. 50000	11. 42	82. 40	.....	6. 18	324
2. 20000	13. 00000	.....	2. 05000	18. 25000	17. 54	71. 23	.....	11. 23	323
1. 75000	6. 50000	.....	.....	8. 25000	21. 21	78. 79	.....	.....	322
. 06000	. 22800	\$0. 02000	.....	. 30800	19. 48	74. 03	.....	6. 49	329
. 06900	. 16800	. 02000	.....	. 24800	24. 19	67. 74	.....	8. 07	329
. 04500	. 16800	. 02000	.....	. 23300	19. 31	72. 10	.....	8. 59	329
. 05500	. 23700	.....	. 03400	. 32600	16. 84	72. 57	.....	10. 50	328
. 04100	. 22120	.....	. 08400	. 30620	13. 84	74. 68	.....	11. 48	330

LIQUORS AND BEVERAGES.^a

\$0. 85700	\$2. 14800	.....	\$1. 55270	\$4. 55330	18. 83	47. 08	.....	34. 10	334
. 97000	2. 35730	.....	1. 59500	4. 92230	19. 71	47. 89	.....	32. 40	333
1. 06000	2. 52000	.....	. 81000	4. 39000	24. 15	57. 40	.....	18. 45	335
1. 20000	2. 79000	.....	1. 24080	5. 28000	22. 94	53. 35	.....	23. 71	a558
. 98000	2. 45000	.....	. 78500	4. 21500	23. 25	58. 12	.....	18. 63	340
. 91000	2. 34000	.....	. 97000	4. 22000	21. 56	55. 45	.....	22. 99	341
. 92800	1. 85700	.....	. 68600	3. 47100	26. 73	53. 50	.....	19. 77	339
1. 00000	3. 00000	.....	. 75000	4. 75000	21. 05	63. 16	.....	15. 79	a559
2. 00000	2. 80000	.....	.....	4. 80000	46. 51	53. 49	.....	.....	a560
. 90200	2. 68000	.....	. 92400	4. 48600	20. 12	56. 29	.....	20. 59	a551
. 88000	2. 34500	.....	1. 24000	4. 46000	19. 73	52. 46	.....	27. 81	a562
. 08550	. 10170	.....	. 08050	. 13770	3. 99	73. 86	.....	22. 15	338
. 01000	. 10950	.....	. 08320	. 15270	6. 54	71. 71	.....	21. 75	a563
. 01290	. 10690	.....	. 08050	. 15080	8. 59	71. 12	.....	20. 29	a564
. 00890	. 10240	.....	. 02470	. 13590	6. 47	75. 35	.....	18. 18	336
. 01560	. 12750	.....	. 06500	. 20750	7. 23	61. 45	.....	31. 32	a565
. 00670	. 09840	.....	. 02880	. 13490	4. 96	73. 69	.....	21. 35	337
. 01550	. 17230	.....	. 07240	. 26010	5. 96	66. 20	.....	27. 84	a563
. 02000	. 19000	.....	. 06000	. 27000	7. 40	70. 38	.....	22. 22	a566
. 01770	. 18440	.....	. 04430	. 24640	7. 19	74. 83	.....	17. 98	a567
. 01000	. 17000	.....	. 04210	. 22210	4. 50	76. 55	.....	18. 95	842
. 02900	. 16750	.....	. 06000	. 24750	8. 08	67. 09	.....	24. 23	a566
. 01770	. 14680	.....	. 04430	. 20860	8. 48	70. 28	.....	21. 24	a567
. 01000	. 12730	.....	. 04300	. 18020	5. 55	70. 58	.....	23. 87	842

LUMBER.

\$2. 23000	\$11. 50000	.....	\$0. 60000	\$14. 33000	15. 56	80. 26	.....	4. 18	346
2. 32000	11. 50000	.....	. 75000	14. 57000	15. 92	73. 93	.....	5. 15	345
5. 00000	7. 00000	.....	.....	12. 00000	41. 06	58. 34	.....	.....	668
2. 25000	7. 50000	.....	. 75000	10. 50000	21. 43	71. 43	.....	7. 14	349
3. 00000	8. 50000	.....	. 50000	12. 00000	25. 00	70. 83	.....	4. 17	350
3. 00000	8. 00000	.....	. 75000	11. 75000	25. 53	68. 09	.....	6. 38	a569
4. 50000	8. 50000	.....	. 50000	13. 50000	33. 33	62. 97	.....	3. 70	a570
2. 75000	7. 25000	.....	. 75000	10. 75000	25. 58	67. 44	.....	6. 98	349
3. 25000	7. 50000	.....	. 50000	11. 25000	28. 89	66. 67	.....	4. 44	350
3. 50000	7. 00000	.....	. 75000	11. 25000	31. 11	62. 22	.....	6. 67	a569
4. 50000	7. 00000	.....	. 50000	12. 00000	37. 50	58. 33	.....	4. 17	a570
. 08000	. 80000	.....	. 01500	. 37500	16. 00	80. 00	.....	4. 00	346
. 15000	. 40000	.....	. 02000	. 57000	26. 31	70. 18	.....	3. 51	346
. 18000	. 90000	.....	. 08000	1. 14000	15. 79	78. 95	.....	5. 26	346

MACHINES AND MACHINERY.

\$20. 80000	\$23. 25000	\$3. 00000	\$1. 00000	\$48. 05000	43. 29	43. 39	6. 24	2. 08	365
6. 05000	6. 53000	.....	.....	12. 39000	43. 87	51. 13	.....	.....	354
2. 10000	7. 71650	.....	.....	10. 81650	28. 06	71. 34	.....	.....	a747
2. 55000	5. 73500	.....	.....	8. 33500	30. 61	69. 39	.....	.....	a748

^a Twenty pounds of iron and steel.
^d Twenty-seven pounds of iron and steel.
^e Sixteen pounds of iron and steel.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

METALS AND METALLIC GOODS.

Establishment No.	State.	Description of unit.
366	Alabama	One ton run of furnace foundry pig-iron (Alabama ore)
386	Indiana	One ton run of furnace foundry pig-iron
399	New York	One ton run of furnace foundry pig-iron (New York ore)
413	Ohio	One ton run of furnace foundry pig-iron (Lake Superior ore)
405	do	One ton run of furnace foundry pig-iron (Hocking Valley and Lake Superior ore)
409	do	One ton run of furnace foundry pig-iron (Hanging Rock ore)
414	do	One ton run of furnace foundry pig-iron (Hanging Rock ore)
a714	do	One ton run of furnace foundry pig-iron (Hanging Rock ore)
a715	Ohio	One ton run of furnace foundry pig-iron (Mahoning Valley and Lake Superior ore)
408	do	One ton run of furnace foundry pig-iron (Mahoning Valley and Lake Superior ore)
a716	do	One ton run of furnace foundry pig-iron (Mahoning Valley and Lake Superior ore)
a720	Pennsylvania	One ton run of furnace foundry pig-iron
435	Tennessee	One ton run of furnace foundry pig-iron (Tennessee ore)
a717	do	One ton run of furnace foundry pig-iron (Tennessee ore)
439	Virginia	One ton run of furnace foundry pig-iron (Virginia ore)
437	do	One ton run of furnace foundry pig-iron (Virginia ore)
438	do	One ton run of furnace foundry pig-iron (Virginia ore)
a718	West Virginia	One ton run of furnace foundry pig-iron (Lake Superior ore)
a719	do	One ton run of furnace foundry pig-iron (West Virginia ore)
376	Great Britain	One ton run of furnace pig-iron b
392	Maryland	One ton number one foundry pig-iron
400	New York	One ton number one foundry pig-iron
377	Great Britain	One ton number three foundry pig-iron
a721	Belgium	One thousand kilograms (2,205 pounds) white pig-iron
a722	Germany	One thousand kilograms (2,205 pounds) white pig-iron
a723	Ohio	One ton Bessemer pig-iron
410	do	One ton Bessemer iron
412	do	One ton Bessemer iron
a724	Pennsylvania	One ton Bessemer iron
424	do	One ton Bessemer iron
425	do	One ton Bessemer iron
407	Ohio	One ton foundry pig-iron, soft, silvery (Ohio brown hematite ore)
406	do	One ton foundry pig-iron, soft, silvery (Ohio brown hematite ore)
411	do	One ton foundry pig-iron, soft, silvery (Ohio brown hematite ore)
a725	do	One ton foundry pig-iron, soft, silvery (Ohio brown hematite ore)
a726	do	One ton foundry pig-iron, soft, silvery (Ohio brown hematite ore)
a727	do	One ton foundry pig-iron, soft, silvery (Ohio brown hematite ore)
a728	Germany	One thousand kilograms (2,205 pounds) mill pig-iron
a729	Pennsylvania	One ton number one mill pig-iron
426	do	One ton number one mill pig-iron
425	do	One ton low-grade mill pig-iron
a730	Ohio	One ton cold-blast charcoal pig-iron (Hanging Rock ore)
a731	do	One ton cold-blast charcoal pig-iron (Hanging Rock ore)
391	Maryland	One ton hot-blast charcoal pig-iron
396	Missouri	One pound pig-lead
395	do	One pound pig-lead
396	Indiana	One ton merchant bar-iron
388	Kentucky	One ton merchant bar-iron
401	New York	One ton merchant bar-iron
428	Pennsylvania	One ton merchant bar-iron
427	do	One ton merchant bar-iron
a732	Tennessee	One ton merchant bar-iron
a733	Ohio	One ton all-puddled bar-iron, based sizes
a734	do	One ton all-puddled bar-iron, based sizes
a735	do	One ton all-puddled bar-iron, based sizes
a736	do	One ton all-puddled bar-iron, based sizes
415	do	One ton all-puddled bar-iron, based sizes
416	do	One ton mixed-puddled bar-and-old-rail bar-iron, based sizes
a737	do	One ton mixed-puddled bar-and-old-rail bar-iron, based sizes
a735	do	One ton muck bar-iron
431	Pennsylvania	One ton pipe-iron
380	Kentucky	One ton bar and plate iron
a738	Ohio	One ton flange-iron boiler plate
a738	do	One ton tank-iron boiler plate

a The wages of employes in this establishment were not reported. Therefore the number will not be found in the wage table, Appendix A.

b Seven per cent. hematite, 27 per cent. spiegeleisen, and 66 per cent. foundry.

VARIATION IN THE COST OF PRODUCTION.

117

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

METALS AND METALLIC GOODS.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$1. 87000	\$4. 32000	\$0. 38000	\$2. 84000	\$11. 49000	16. 28	60. 22	3. 13	20. 37	366
1. 80000	10. 80000			12. 80000	14. 84	85. 16			386
1. 54700	9. 51650	. 18900	. 87670	11. 82980	13. 08	80. 45	1. 60	4. 87	399
1. 20500	12. 68800		. 81700	14. 81000	8. 81	85. 68		5. 51	413
2. 00000	11. 20000		. 75000	14. 05000	14. 23	80. 48		5. 34	405
1. 20000	10. 15000	. 15000	. 37000	11. 87000	10. 11	85. 51	1. 27	3. 11	409
1. 50000	9. 80000	. 44000	. 70000	12. 44000	12. 06	78. 78	3. 53	5. 63	414
1. 80000	11. 95000	. 50000	. 50000	14. 75000	12. 20	81. 02	3. 39	3. 39	a714
1. 40000	12. 17000	0. 10000	1. 50000	15. 17000	9. 23	80. 22	. 06	9. 89	a715
1. 25000	12. 62000		. 73000	14. 62000	8. 55	86. 32		5. 13	408
1. 50000	13. 00000		1. 00000	15. 50000	9. 68	83. 87		6. 45	a716
2. 00000	13. 75000	. 25000		16. 00000	12. 50	85. 94	1. 56		a720
1. 83000	16. 01800		. 79000	12. 63800	14. 49	79. 26		6. 25	435
2. 17000	10. 82800			12. 99000	16. 71	83. 29			a717
1. 22200	9. 01000	. 23100	1. 14100	11. 66400	10. 98	77. 25	1. 98	9. 78	439
1. 19350	10. 47580	. 64000	. 50000	12. 68830	9. 21	82. 57	4. 27	3. 95	437
1. 11400	10. 70000	. 15000	. 25200	12. 21600	9. 12	87. 59	1. 23	2. 06	438
2. 16000	13. 32500	. 31000	. 78500	16. 53000	12. 70	80. 61	1. 88	4. 81	a718
1. 50000	10. 85000		1. 00000	13. 45000	11. 16	81. 41		7. 43	a719
2. 89842	10. 90771			11. 87813	8. 16	91. 84			376
2. 48110	14. 77810			17. 26420	14. 38	85. 63			392
2. 17000	13. 92780	. 26684	. 04300	16. 40764	13. 29	84. 89	1. 56	. 20	400
. 51214	6. 33236		. 32000	7. 26510	8. 42	87. 18		4. 40	377
1. 08000	8. 38000		. 88000	10. 34000	10. 45	81. 04		8. 51	a721
1. 30400	10. 30400		1. 05000	12. 71000	10. 23	81. 51		8. 26	a722
1. 18830	15. 01470	. 15000	. 30500	16. 65800	7. 13	90. 13	. 90	1. 84	a723
2. 50000	14. 90000	. 50000	. 50000	18. 40000	13. 59	80. 98	2. 71	2. 72	410
2. 50000	14. 90000		1. 00000	18. 40000	13. 59	80. 98		5. 43	412
1. 22800	14. 75800			16. 72800	7. 29	88. 22	4. 49		a724
1. 14000	13. 91000	. 75000	. 75000	16. 55000	6. 89	84. 05	4. 53	4. 53	424
1. 50000	12. 88000	. 75000	1. 50000	17. 61000	8. 52	78. 71	4. 25	8. 52	425
2. 29000	10. 08000	. 50000	. 80000	13. 45000	17. 02	74. 80	3. 72	4. 46	407
2. 18000	10. 42000	. 40000	. 50000	13. 42000	15. 65	77. 65	2. 98	3. 72	406
1. 58000	10. 67000	. 33000	. 50000	12. 76000	14. 58	78. 90	2. 59	3. 93	411
1. 85000	10. 67000	. 40000	. 50000	12. 92000	15. 09	77. 94	3. 10	3. 87	a725
2. 00000	10. 62000	. 50000	. 50000	13. 62000	14. 69	77. 97	3. 67	3. 67	a726
2. 00000	10. 22000		. 75000	12. 97000	15. 43	78. 79		5. 78	a727
1. 30000	8. 04000		1. 00000	10. 43000	12. 46	77. 09		10. 45	a728
1. 40000	10. 50000	1. 50000	1. 00000	14. 40000	9. 72	72. 92	10. 42	6. 94	a729
2. 00000	11. 97000	. 40000	. 58000	14. 95000	13. 38	80. 07	2. 67	3. 88	426
1. 50000	9. 12000	. 75000	1. 50000	12. 87000	11. 66	70. 86	5. 83	11. 65	425
3. 00000	18. 70000	1. 00000	1. 00000	23. 70000	12. 66	78. 90	4. 22	4. 22	a730
3. 00000	18. 82000	1. 00000	1. 00000	21. 88000	13. 71	77. 15	4. 57	4. 57	a731
3. 45440	18. 42860			21. 88500	15. 79	84. 21			391
. 01531		. 00548	. 01170	. 03249	47. 12			38. 01	396
. 01522			. 01413	. 02735	48. 84		16. 87	51. 66	395
9. 84000	21. 65000			30. 99000	30. 14	69. 88			386
10. 71000	10. 43000			31. 38200	34. 18	61. 91		3. 96	388
10. 21440	19. 29872	1. 12674	6. 58447	37. 22433	27. 44	51. 85	3. 01	17. 70	401
13. 08000	18. 02000	2. 50000	4. 50000	38. 00000	34. 21	47. 87	6. 58	11. 84	428
12. 00000	20. 05000	1. 42000	5. 93000	39. 40000	30. 46	50. 88	8. 61	15. 05	427
15. 00000	15. 00000			30. 00000	50. 00	50. 00			a732
3. 75000	223. 00000		3. 25000	35. 00000	10. 71	80. 00		9. 29	a733
5. 72000	237. 00000		1. 75000	34. 47000	16. 59	78. 83		5. 08	a734
4. 00000	224. 50000		3. 00000	33. 50000	11. 94	79. 11		8. 95	a735
13. 00000	18. 08000		6. 00000	34. 00000	38. 23	44. 12		17. 65	a736
12. 00000	15. 08000		7. 00000	35. 00000	37. 14	42. 66		20. 00	415
3. 75000	24. 00000		3. 25000	31. 00000	12. 09	77. 42		10. 49	416
7. 00000	16. 50000		6. 50000	30. 00000	23. 33	55. 00		21. 67	a737
7. 00000	17. 25000		2. 25000	26. 50000	26. 42	65. 09		8. 49	a735
12. 28000	12. 25000	2. 0000	2. 00000	34. 51000	35. 53	52. 88	5. 79	5. 80	431
14. 00000	19. 00000			35. 00000	45. 71	54. 29			389
12. 58000	40. 00000		4. 50000	57. 00000	21. 93	70. 18		7. 89	a738
12. 58000	426. 00000		4. 50000	43. 00000	29. 07	60. 47		10. 46	a738

c Material is muck bar-iron.

d Material is steel ingots.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

METALS AND METALLIC GOODS—Concluded.

Establishment No.	State.	Description of unit.
385	Illinois	One ton small T-rails, six to twenty pounds
a732	Tennessee	One ton light T-rails and fish and angle plates
a738	Ohio	One ton shell-iron boiler plate
417	do	One ton hoop, band, and cotton-tie iron
375	Delaware	One ton ordinary black sheet-iron
419	Ohio	One ton sheet and plate iron and steel (run of mill)
418	do	One ton Bessemer steel rails and merchant iron (run of mill)
371	Belgium	One thousand kilograms (2,205 pounds) Bessemer steel rails, weighing 78.6 pounds to the yard.
402	New York	One ton Bessemer steel rails
369	Belgium	One thousand kilograms (2,205 pounds) Bessemer steel ingots
418	Ohio	One ton Bessemer steel ingots
370	Belgium	One thousand kilograms (2,205 pounds) Bessemer steel plates for vessels.
380	Great Britain	One ton Siemens process steel plates, bars, and axles, from the pig
a738	Ohio	One ton shell-steel plates
a738	do	One ton tank-box steel plates
a738	do	One ton fire-box steel plates
421	do	One ton common spring steel
433	Pennsylvania	One ton tool steel
432	do	One ton plough steel
a739	Massachusetts	One ton number twelve bright coppered wire
420	Ohio	One ton assorted sizes steel wire
429	Pennsylvania	One ton assorted sizes iron pipe
430	do	One twelve-hundred-pound safe
436	Vermont	One hay, coal, and wagon scale, capacity three tons, platform 8 by 14 feet.
436	do	One family scale, capacity 240 pounds, with brass scoop and double brass beam.
436	do	One portable platform scale on wheels, capacity 400 pounds, platform 15 by 22 inches.
403	New York	One ton horseshoes
404	do	One pound merchant brass
a740	do	One locomotive head-light
a741	Illinois	One keg iron nails
384	do	One keg iron nails
a742	Ohio	One keg iron nails
423	do	One keg iron nails
a743	do	One keg iron nails
a744	West Virginia	One keg iron nails
443	do	One keg iron nails
422	Ohio	One keg iron and steel nails
a745	West Virginia	One keg iron and steel nails
a742	Ohio	One keg steel nails
a743	West Virginia	One keg steel nails
385	Illinois	One ton railroad spikes
a744	Massachusetts	One thousand sewing-machine needles

MUSICAL INSTRUMENTS.

448	New York	One first-class grand piano
446	do	One first-class grand piano
446	do	One first-class upright piano
446	do	One first-class upright piano
446	do	One first-class square piano
446	do	One first-class square piano
449	do	One second-class grand piano
449	do	One second-class upright piano

OILS AND ILLUMINATING FLUIDS.

a745	Great Britain	One gallon illuminating oil made from shale
451	New York	One gallon kerosene oil
453	Pennsylvania	One gallon refined kerosene oil (110° test)
453	do	One gallon refined kerosene oil (110° test)

a The wages of employes in this establishment were not reported. Therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employees and wages, except as noted below. See explanation of table, page 91.

METALS AND METALLIC GOODS—Concluded.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$6.34000	\$17.85000	.....	\$5.10000	\$28.79000	22.02	69.26	.....	17.73	385
15.00000	15.00000	.....	.....	30.00000	50.00	50.00	.....	.....	a782
12.50000	20.00000	.....	4.50000	47.00000	26.60	63.83	.....	9.57	a738
15.80000	22.10000	.....	6.82000	44.22000	34.60	49.98	.....	15.43	417
21.00000	28.00000	\$3.20000	22.80000	73.00000	28.77	35.61	4.39	31.23	375
21.80000	a27.00000	.....	16.34000	65.14000	33.46	41.45	.....	25.09	419
7.50000	a27.00000	.....	4.85000	39.35000	19.06	68.61	.....	12.33	418
1.27000	18.30000	.....	2.68000	22.34000	5.69	82.32	.....	11.99	371
7.87200	21.00000	.....	2.57300	31.14500	24.31	67.43	.....	8.26	402
1.10000	13.93000	.....	2.50000	17.53000	6.27	79.47	.....	14.26	369
2.50000	22.81000	.....	1.95000	27.26000	9.17	83.67	.....	7.16	418
1.95000	a20.41000	.....	6.20000	28.56000	6.82	71.47	.....	21.71	370
6.07800	13.87213	.....	2.06522	22.01645	27.61	63.00	.....	9.39	380
12.50000	b45.00000	.....	4.50000	62.00000	20.16	72.59	.....	7.25	a788
12.50000	b38.00000	.....	4.50000	55.00000	22.73	69.09	.....	8.18	a788
12.50000	b60.00000	.....	4.50000	77.00000	16.24	77.92	.....	5.84	a788
17.00000	18.00000	.....	10.00000	45.00000	37.78	40.00	.....	22.22	421
64.82700	61.25000	15.00000	5.09000	146.07700	44.37	41.98	10.27	3.43	438
26.42000	87.44000	6.82000	7.40000	177.06000	32.98	48.57	8.85	9.60	432
5.98000	42.34000	.....	8.50000	56.70000	10.51	74.49	.....	15.00	a789
15.50000	89.00000	.....	9.89000	64.39000	24.07	60.57	.....	15.36	420
16.94000	24.51000	2.00000	2.30000	55.75000	30.89	61.90	3.59	4.13	429
22.61000	43.20000	3.75000	2.00000	71.56000	31.60	60.37	5.24	2.79	430
6.74000	19.05000	.....	3.37000	29.16000	23.11	65.33	.....	11.56	436
2.29000	2.37000	.....	1.10000	5.67000	38.80	41.80	.....	19.40	436
2.89000	4.00000	.....	1.44000	8.32000	34.61	48.08	.....	17.81	436
11.50000	19.68000	.83000	8.10000	39.50000	29.07	49.62	.83	20.48	408
.02880	.11050	.00026	.01804	.15560	17.22	71.02	.17	11.59	404
24.44081	22.04536	5.64374	2.80567	54.93568	44.49	40.13	10.27	5.11	a740
.68400	.90700	.....	.29700	1.88300	36.33	47.90	.....	15.77	a741
.80250	1.21310	.....	.34950	1.96510	33.98	51.29	.....	14.73	384
1.05000	.98250	.....	.48790	2.50940	43.20	38.36	.....	19.44	a742
.93000	.75000	.....	.31500	1.99500	46.62	37.59	.....	15.79	423
.94000	.75000	.....	.43000	2.12000	44.34	35.38	.....	20.28	a743
.98210	.89270	.....	.48750	2.36230	41.57	37.79	.....	20.64	a744
1.08100	.94500	.05000	.38900	2.41500	42.69	39.13	2.07	16.11	443
.96810	.96720	.....	.47290	2.34320	38.54	41.25	.....	20.18	422
.73000	1.17500	.....	.37500	2.29800	32.03	51.53	.....	16.45	a745
.67370	b1.37450	.....	.36150	2.41170	28.02	54.99	.....	14.99	a742
.67000	b1.32000	.....	.35200	2.34200	28.61	54.36	.....	15.08	a743
7.89000	17.00000	.....	6.99000	31.78000	24.79	53.49	.....	21.72	383
5.00000	1.50000	.....	1.00000	7.50000	66.67	20.00	.....	13.33	a744

MUSICAL INSTRUMENTS.

\$141.23000	\$137.23000	.....	\$22.19000	\$300.75000	46.99	45.63	.....	7.38	448
161.00000	121.10000	.....	19.04000	301.14000	53.47	40.21	.....	6.82	446
104.47000	112.02000	.....	20.67000	237.76000	43.94	47.36	.....	8.70	448
119.00000	90.49000	.....	15.58000	225.07000	52.87	40.21	.....	6.92	446
104.47000	105.02000	.....	20.67000	230.76000	45.27	45.77	.....	8.96	448
119.00000	80.16000	.....	15.58000	214.74000	55.41	37.83	.....	7.26	446
75.78000	79.44000	\$4.78000	15.54000	175.54000	43.16	45.26	2.73	8.85	449
87.24000	61.75000	4.10000	13.04000	136.89000	41.91	45.13	2.99	9.97	449

OILS AND ILLUMINATING FLUIDS.

\$0.04010	\$0.03280	.....	\$0.00990	\$0.08290	48.55	39.47	.....	11.98	a746
.02211	.41211	.....	.02938	.46890	4.77	88.89	.....	6.34	451
.00310	.03000	.....	.03560	.06870	4.51	43.67	.....	51.83	453
.00490	.03000	.....	.08590	.07050	6.96	42.55	.....	50.50	452

b Material is steel slabs.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

PAPER.

Establishment No.	State.	Description of unit.
456	Delaware	One pound newspaper paper
458	Maine	One pound newspaper paper
455	Delaware	One pound book paper
460	Massachusetts	One pound number one sized and super-calendered book paper
457	Delaware	One pound tinted pamphlet cover paper
463	Massachusetts	One pound engine-sized flat writing paper
464	do	One pound writing paper, superfine, folded and flat, made from best number one white rags, soft dried, and both antique and plate finish.
465	do	One ream glazed, plated, and enameled paper.
2746	do	One thousand white envelopes, 3½ by 6 inches, engine-sized, rag paper; the ream weight is on a basis of 22½ by 30, 50 pounds to 500 sheets.

PRINT WORKS.

470	Massachusetts	Printing one yard print-cloth (24½ inches wide, 64 by 64)
471	do	Printing one yard cheap dress goods in fugitive colors (27 inches wide, 48 by 48, and measuring 8 yards to the pound).

RUBBER GOODS.

483	New Jersey	One case (24 pairs) light-weight women's rubber shoes
482	do	One case (12 pairs) women's arctic rubber shoes
483	do	One case (12 pairs) heavy-weight men's rubber shoes
482	do	One case (12 pairs) men's arctic rubber shoes
484	do	One pound rubber hose

SILK.

485	Connecticut	One pound machine twist and sewing silk
490	New York	One pound spun silk
489	do	One pound of silk yarn for manufacturers' and household use
488	do	One pound silk ribbon
486	New Jersey	One yard gros-grain silk

TOBACCO.^c

499	Illinois	One pound smoking tobacco (long cut, best grade)
499	do	One pound smoking tobacco (granulated, medium grade)
499	do	One pound smoking tobacco (low grade, stem)
500	do	One pound smoking tobacco (granulated)
503	Michigan	One pound smoking tobacco (granulated)
500	Illinois	One pound fine-cut chewing tobacco
499	do	One pound fine-cut chewing tobacco
499	do	One pound fine-cut chewing tobacco
501	Kentucky	One pound fine-cut chewing tobacco
503	Michigan	One pound fine-cut chewing tobacco
498	Illinois	One pound plug chewing tobacco
498	do	One pound plug chewing tobacco
498	do	One pound plug chewing tobacco
502	Kentucky	One pound plug chewing tobacco
504	Missouri	One pound plug tobacco
504	New York	One pound plug tobacco
511	North Carolina	One pound plug tobacco
510	do	One pound plug tobacco
509	do	One pound plug tobacco
520	Virginia	One pound plug tobacco
522	do	One pound plug tobacco
525	do	One pound plug tobacco
523	do	One pound plug tobacco

^b The wages of employes in this establishment were not reported. Therefore the number will not be found in the wage table, Appendix A.

^c Including other expenses.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

PAPER.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$0.00970	\$0.05340	.....	.....	\$0.06010	11.14	88.86	.....	.....	456
.00824	.02821	.....	\$0.01309	.04506	13.88	57.45	.....	28.67	458
.00753	.04399	.....	.01602	.06754	11.15	65.13	.....	23.72	455
.01109	.04385	.....	.01083	.06617	17.67	66.27	.....	16.06	460
.00750	.08250	.....	.....	.09000	8.33	91.67	.....	.....	457
.01000	.04500	.....	.02500	.08000	12.50	56.25	.....	31.25	463
.02750	.05500	.....	.03300	.11550	23.81	47.62	.....	28.57	464
.80000	2.00000	\$0.20000	.....	3.00000	26.67	66.67	6.66	.....	465
.05000	.65000	.10000	.15000	.95000	5.26	68.42	10.53	15.79	6746

PRINT WORKS.

\$0.00470	\$0.00860	.....	\$0.00290	\$0.01620	29.01	53.08	.....	17.91	470
.00300	.00350	.....	.00243	.00893	33.59	39.20	.....	27.21	471

RUBBER GOODS.

\$0.80000	\$0.90000	.....	.....	\$7.70000	10.39	89.61	.....	.....	488
1.20000	7.30000	.....	.....	8.50000	14.12	85.88	.....	.....	482
1.80000	8.90000	.....	.....	10.50000	15.24	84.76	.....	.....	483
1.60000	8.90000	.....	.....	10.50000	15.24	84.76	.....	.....	482
.02940	.01840	.....	.....	.03880	62.58	47.42	.....	.....	484

SILK.

\$0.85000	\$4.00000	.....	\$0.80000	\$5.65000	15.04	70.80	.....	14.16	485
.36290	4.00000	.....	.06450	4.45740	8.81	89.74	.....	1.45	490
.27200	4.25850	.....	.09740	4.62780	5.88	92.02	.....	2.10	489
2.30580	4.95970	.....	.58150	7.79700	29.57	63.61	.....	6.82	488
.40000	.38000	.....	.....	.78000	51.28	48.72	.....	.....	486

TOBACCO.

\$0.15000	\$0.30000	.....	\$0.05000	\$0.50000	\$0.00	\$0.00	.....	10.00	499
.05000	.15000	.....	.02000	.22000	22.73	68.18	.....	9.09	499
.02000	.00750	.....	.01000	.03750	53.38	20.00	.....	26.67	499
.02000	.08000	.....	.04000	.14000	14.29	57.14	.....	28.57	500
.03000	.10000	.....	.02500	.15500	19.35	64.52	.....	16.13	503
.02000	.12000	.....	.05000	.20000	10.00	65.00	.....	25.00	500
.05000	.25000	.....	.07500	.37500	13.33	68.07	.....	20.00	499
.04000	.09000	.....	.04500	.17500	22.86	51.43	.....	25.71	499
.05000	.20000	.....	.05000	.30000	18.66	64.67	.....	16.67	501
.05000	.20000	.....	.02500	.27500	18.18	72.73	.....	9.09	503
.05000	.22000	.....	.03250	.31250	16.00	73.00	.....	10.40	498
.04000	.14000	.....	.03250	.21250	18.82	65.88	.....	15.20	498
.03500	.07000	.....	.02750	.13250	26.42	52.83	.....	20.75	498
.04000	.22000	.....	.....	.26000	15.38	84.62	.....	.....	502
.02185	.24370	.....	.....	.26922	8.12	90.52	.....	1.36	504
.04370	.12170	\$0.00530	.00367	.18220	23.99	68.80	2.90	6.31	508
.01685	.17851	.00484	.11977	.32000	5.28	55.78	1.51	37.43	511
.04880	.15770	.00940	.04940	.20500	18.30	59.50	3.55	18.65	510
.05130	.12070	.00750	.04630	.22580	22.72	53.45	3.32	20.51	509
.02539	.17852	.00304	.08629	.29324	8.66	60.88	1.04	29.42	520
.02770	.19000	.00520	.03120	.27610	10.78	68.82	1.88	18.54	522
.03880	.15720	.00430	.05340	.25380	15.33	61.94	1.69	21.04	525
.03877	.12914	.00524	.06196	.22211	16.10	58.14	2.36	23.40	523

The revenue tax, 8 cents per pound on chewing and smoking tobacco, and \$3 per thousand on cigars, is not included in this table.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

TOBACCO—Concluded.

Establishment No.	State.	Description of unit.
524	Virginia	One pound plug tobacco
521	do	One pound plug tobacco
492	Connecticut	One thousand five-cent cigars
496	Illinois	One thousand five-cent cigars
496	do	One thousand five-cent cigars
497	do	One thousand five-cent cigars
497	do	One thousand five-cent cigars
498	do	One thousand five-cent cigars
498	do	One thousand five-cent cigars
494	do	One thousand five-cent cigars
a 749	do	One thousand five-cent cigars
a 749	do	One thousand five-cent cigars
495	do	One thousand five-cent cigars
a 750	do	One thousand five-cent cigars
a 750	do	One thousand five-cent cigars
514	Ohio	One thousand five-cent cigars
514	do	One thousand five-cent cigars
517	do	One thousand five-cent cigars
517	do	One thousand five-cent cigars
512	do	One thousand five-cent cigars
512	do	One thousand five-cent cigars
a 751	do	One thousand five-cent cigars
a 751	do	One thousand five-cent cigars
513	do	One thousand five-cent cigars
a 752	do	One thousand five-cent cigars
a 752	do	One thousand five-cent cigars
515	do	One thousand five-cent cigars
515	do	One thousand five-cent cigars
516	do	One thousand five-cent cigars
516	do	One thousand five-cent cigars
a 753	do	One thousand five-cent cigars
a 754	do	One thousand five-cent cigars
a 755	do	One thousand five-cent cigars
519	Rhode Island	One thousand five-cent cigars
492	Connecticut	One thousand ten-cent cigars
496	Illinois	One thousand ten-cent cigars
497	do	One thousand ten-cent cigars
493	do	One thousand ten-cent cigars
494	do	One thousand ten-cent cigars
a 749	do	One thousand ten-cent cigars
495	do	One thousand ten-cent cigars
a 750	do	One thousand ten-cent cigars
514	Ohio	One thousand ten-cent cigars
517	do	One thousand ten-cent cigars
512	do	One thousand ten-cent cigars
a 751	do	One thousand ten-cent cigars
a 752	do	One thousand ten-cent cigars
515	do	One thousand ten-cent cigars
516	do	One thousand ten-cent cigars
519	Rhode Island	One thousand ten-cent cigars
518	Ohio	One thousand seed stogie cigars
a 754	do	One thousand seed stogie cigars
a 756	West Virginia	One thousand seed stogie cigars
527	do	One thousand seed stogie cigars
526	Virginia	One thousand cigarettes

WOOLLEN GOODS.

567	New York	One yard cassimere (54 inches wide and weighing 12½ ounces)
542	Illinois	One yard cassimere (54 inches wide and weighing 16 ounces)
539	Delaware	One yard cassimere (54 inches wide and weighing 16 ounces)
570	Pennsylvania	One yard cassimere (54 inches wide and weighing 16 ounces)
570	do	One yard cassimere (54 inches wide and weighing 20 ounces)
540	Delaware	One yard cassimere (54 inches wide and weighing 24 ounces)
557	Massachusetts	One yard fine worsted cassimere (54 inches wide)
554	Maryland	One yard kersey cloth (27 inches wide and weighing 18 ounces)

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COST OF PRODUCTION—Continued.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

TOBACCO—Concluded.

Amount of unit cost.					Per cent. of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$0.02250	\$0.13540	\$0.00550	\$0.04520	\$0.20860	10.78	64.91	2.64	21.67	524
.02140	.13290	.00740	.04280	.20450	10.46	64.90	3.62	20.98	521
11.00000	4.00000	.....	3.00000	18.00000	61.11	22.22	.....	16.67	492
10.50000	10.00000	.....	3.00000	23.50000	44.68	42.55	.....	12.77	496
12.50000	14.00000	.....	3.25000	29.75000	42.01	47.06	.....	10.98	496
10.50000	8.50000	.....	4.50000	23.50000	44.68	36.17	.....	19.15	497
11.50000	13.00000	.....	4.50000	29.00000	39.65	44.83	.....	15.52	497
8.00000	12.00000	.....	4.00000	24.00000	33.33	50.00	.....	16.67	493
7.00000	7.00000	.....	4.00000	18.00000	38.89	38.89	.....	22.22	493
9.75000	10.50000	.....	2.55000	22.80000	42.76	46.05	.....	11.19	494
10.50000	11.00000	.....	3.25000	24.75000	42.42	44.45	.....	13.18	a749
9.00000	8.50000	.....	3.25000	18.75000	48.00	34.67	.....	17.33	a749
10.00000	9.50000	.....	3.00000	22.50000	44.45	42.22	.....	13.33	495
8.75000	6.00000	.....	3.00000	17.75000	49.30	33.80	.....	16.90	495
10.50000	11.20000	.....	3.00000	24.70000	42.51	45.34	.....	12.15	a750
9.00000	6.50000	.....	3.00000	18.50000	48.65	35.14	.....	16.21	a750
8.50000	6.00000	.....	3.50000	18.00000	47.22	33.33	.....	19.45	514
9.25000	10.00000	.....	3.50000	22.75000	40.66	43.98	.....	15.38	514
10.00000	7.30000	.....	4.00000	21.30000	46.95	34.27	.....	18.78	517
10.00000	10.25000	.....	4.00000	24.25000	41.24	42.27	.....	16.49	517
8.25000	6.00000	.....	3.20000	17.45000	47.28	34.39	.....	18.33	512
8.25000	8.50000	.....	3.20000	19.95000	41.35	42.61	.....	16.04	512
8.25000	8.00000	.....	3.00000	16.25000	50.77	30.77	.....	18.46	a751
8.25000	8.00000	.....	3.00000	19.25000	42.86	41.56	.....	15.58	a751
8.00000	7.00000	.....	2.90000	18.50000	46.49	37.84	.....	15.67	513
10.85000	10.98000	.....	3.15000	24.46000	42.82	44.80	.....	12.98	a752
9.35000	9.89000	.....	3.15000	22.19000	42.14	43.67	.....	14.19	a752
8.25000	13.00000	.....	3.00000	24.25000	34.02	53.61	.....	12.37	515
7.50000	7.00000	.....	3.00000	17.50000	42.86	40.00	.....	17.14	515
9.85000	11.75000	.....	2.75000	24.35000	40.45	48.26	.....	11.29	516
8.40000	8.25000	.....	2.75000	19.40000	43.30	42.53	.....	14.17	516
8.25000	8.50000	.....	2.75000	19.50000	43.31	43.59	.....	14.10	a753
8.50000	8.50000	.....	3.25000	20.25000	41.97	41.98	.....	16.05	a754
8.50000	8.00000	.....	3.50000	20.00000	42.50	40.00	.....	17.50	a755
10.50000	11.00000	.....	3.50000	25.00000	42.00	44.00	.....	14.00	519
18.25000	24.00000	.....	6.00000	52.25000	34.92	53.59	.....	11.49	492
16.50000	27.00000	.....	4.50000	48.00000	34.37	56.25	.....	9.38	496
15.50000	23.40000	.....	4.50000	43.40000	35.71	53.92	.....	10.37	497
15.00000	28.50000	.....	4.00000	47.50000	31.58	60.00	.....	8.42	493
15.00000	26.50000	.....	2.55000	44.05000	34.05	60.16	.....	5.79	494
15.50000	26.00000	.....	3.75000	45.25000	34.25	57.46	.....	8.29	a749
14.00000	26.00000	.....	3.20000	43.20000	32.41	60.18	.....	7.41	495
16.00000	25.75000	.....	3.25000	45.00000	35.56	57.22	.....	7.22	a750
12.50000	27.50000	.....	4.00000	44.00000	28.41	62.50	.....	9.09	514
13.50000	26.52000	.....	4.50000	44.52000	30.32	59.57	.....	10.11	517
11.00000	27.00000	.....	3.75000	41.75000	26.35	64.67	.....	8.98	512
12.25000	29.00000	.....	3.00000	44.25000	27.68	65.54	.....	6.78	a751
15.35000	25.55000	.....	3.15000	44.05000	34.85	58.00	.....	7.15	a752
12.50000	24.00000	.....	3.00000	39.50000	31.65	60.76	.....	7.59	515
14.50000	22.00000	.....	3.00000	39.50000	36.70	55.70	.....	7.60	516
14.25000	30.50000	.....	4.75000	49.50000	28.80	61.61	.....	9.59	519
3.25000	1.50000	.....	.50000	5.25000	61.90	28.57	.....	9.53	518
3.35000	1.75000	.....	.90000	6.00000	55.83	29.17	.....	15.00	a754
3.28000	1.60000	.....	.47500	5.35500	61.11	29.99	.....	8.90	a756
3.33000	2.12500	.....	.54500	6.00000	55.50	35.41	.....	9.09	527
1.00200	1.68900	.....	.91170	3.60270	28.99	46.12	.....	24.89	526

WOOLLEN GOODS.

\$0.37064	\$0.53739	\$0.03575	\$0.28177	\$1.22555	30.24	43.85	0.292	22.99	567
.28000	.50000	.....	.28000	1.38000	21.02	57.97	.....	21.01	543
.29000	.68100	.00940	.21900	1.21020	24.78	56.27	.78	18.17	539
.22000	.67500	.....	.15050	1.35350	16.84	72.04	.....	11.12	570
.33000	1.08300	.....	.17270	1.60320	20.99	68.24	.....	10.77	570
.26000	.85000	.....	.18000	1.41000	21.27	65.96	.....	12.77	540
.09000	1.70000	.....	.10000	2.40000	25.00	70.48	.....	4.17	557
.06480	.26560	.....	.04250	.87240	17.36	71.83	.....	11.41	554

COST OF PRODUCTION—Concluded.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

WOOLEN GOODS—Concluded.

Establishment No.	State.	Description of unit.
569	North Carolina	One yard kersey cloth (27 inches wide and weighing 11 ounces)
a757	Tennessee	One yard cloth
538	Connecticut	One yard ladies' cloth (54 inches wide and weighing 8 ounces)
552	Maine	One yard ladies' cloth (54 inches wide and weighing 8 ounces)
537	Connecticut	One yard tricot dress goods (36 inches wide and weighing 4 ounces)
549	Kentucky	One yard Kentucky jeans
548	do	One yard common jeans
548	do	One yard best quality jeans
544	Indiana	One yard best quality jeans
543	do	One yard half-wool jeans
a758	do	One yard half-wool jeans (70 picks)
545	do	One yard flannel (26 by 26 and weighing 4 ounces)
580	Massachusetts	One yard flannel (27 inches wide and weighing 4 ounces)
562	do	One yard flannel (27 inches wide and weighing 4 ounces)
563	Missouri	One yard flannel (27 inches wide and weighing 8 ounces)
561	Massachusetts	One yard flannel (weighing 2½ ounces)
546	Indiana	One yard flannel (weighing 5 ounces)
544	do	One yard flannel (weighing 5 ounces)
553	Maine	One yard flannel
545	Indiana	One pair blankets (22 by 22 picks and weighing 5 pounds)
565	New Jersey	One pair blankets (68 by 78 inches and weighing 5 pounds)
573	Pennsylvania	One pair blankets (weighing 5 pounds)
563	Missouri	One pair blankets (pure woollen, 80 by 90 inches and weighing 8 pounds)
563	do	One pound yarn (one-fourth blood wool)
568	New York	One pound colored yarn
a759	do	One yard upholstering goods (wool and hair, and measuring one yard to the pound.)

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage-table, Appendix A.

* COST OF PRODUCTION—Concluded.

NOTE.—The establishment numbers correspond to those in the table on page 295, Appendix A, showing number of employes and wages, except as noted below. See explanation of table, page 91.

WOOLEN GOODS—Concluded.

Amount of unit cost.					Per cent of unit cost.				Establishment No.
Labor.	Materials.	Administration.	Other.	Total.	Labor.	Materials.	Administration.	Other.	
\$0.06770	\$0.16640	\$0.01110	\$0.05060	\$0.29580	22.88	56.27	3.75	17.10	569
.05000	.17000	.....	.....	.22000	22.72	77.28	.....	.....	a757
.09000	.80250	.....	.10750	.50000	18.00	60.50	.....	21.50	538
.10000	.54000	.....	.08000	.52000	19.23	65.38	.....	15.39	552
.08000	.22000	.....	.07000	.37000	21.62	50.46	.....	18.92	537
.05000	.13500	.....	.04500	.23000	21.74	58.60	.....	19.57	549
.05000	.13000	.....	.01500	.19500	25.64	66.67	.....	7.69	548
.10000	.20000	.....	.02000	.32000	31.25	62.50	.....	6.25	548
.08000	.16000	.....	.02000	.26000	30.77	61.54	.....	7.69	544
.08000	.12000	.....	.02000	.20000	30.00	60.00	.....	10.00	543
.04000	.11750	.....	.02500	.18250	21.91	64.39	.....	13.70	a758
.03000	.12000	.....	.02000	.17000	17.65	70.50	.....	11.76	545
.03000	.12876	.....	.02457	.18333	16.36	70.24	.....	13.40	560
.08420	.15500	.....	.02770	.21690	15.77	71.46	.....	12.77	562
.13000	.30000	.04600	.03000	.50600	25.69	59.29	9.09	5.98	563
.04000	.10500	.....	.01000	.15500	25.81	67.74	.....	6.45	561
.07000	.23000	.....	.02000	.32000	21.87	71.88	.....	6.25	546
.08000	.18000	.....	.02000	.28000	30.77	61.54	.....	7.69	544
.02640	.11500	.....	.02920	.17080	15.47	67.41	.....	17.12	563
0.26000	2.06000	.....	0.10000	2.51000	13.95	82.07	.....	8.98	545
.70000	2.00000	.....	.....	2.70000	25.93	74.07	.....	.....	565
.61300	2.46000	\$0.20000	.12300	3.39600	18.05	72.44	5.91	3.60	573
1.60000	4.28000	.60000	.12000	6.60000	24.24	64.85	9.09	1.82	563
.11000	.43000	.05600	.01400	.61000	18.03	70.50	9.18	2.29	563
.08000	.85130	.00910	.01860	.44300	15.57	79.30	2.06	3.07	568
.57888	.29141	.....	.10781	.97740	59.20	29.82	.....	10.98	a759

In the preceding table the cost of production of staple articles in a administration, and other expenses being separately exhibited. In the these items of cost is made. First, an analysis of the labor cost of bringing out the expense for carding, cloth room, reeling and winding, separately reported. When not separately reported they are to be this are shown. The establishment numbers in the margin correspond A, page 295, so that they may be readily identified. Next an analysis iron, classed in the preceding table under metals and metallic goods. producing articles of glass. As an additional, and important, item of

COTTON GOODS—ANALYSIS OF LABOR COST.

NOTE.—The establishment numbers correspond to those in the preceding table, and also to those in the table on page 295, Appendix A, except as noted below.

Estab- lish- ment No.	State.	Description of unit.
a630	Georgia	Sheeting 36 inches wide, 40 by 40, and measuring 3.24 yards to the pound..
a630	do	Sheeting 36 inches wide, 44 by 42, and measuring 3.08 yards to the pound..
a630	do	Sheeting 36 inches wide, 44 by 42, and measuring 2.21 yards to the pound..
246	Virginia	Sheeting 36 inches wide, 44 by 44, and measuring 4 yards to the pound..
247	do	Sheeting 36 inches wide, 44 by 48, and measuring 4.08 yards to the pound..
248	do	Sheeting 36 inches wide, 44 by 48, and measuring 4.08 yards to the pound..
234	New York	Sheeting 36 inches wide, 44 by 48, and measuring 4.5 yards to the pound..
199	Georgia	Sheeting 36 inches wide, 50 by 50, and measuring 3.6 yards to the pound..
199	do	Sheeting, 36 inches wide, 50 by 50, and measuring 4.01 yards to the pound..
a630	do	Sheeting, 40 inches wide, 48 by 48, and measuring 2.49 yards to the pound..
a630	do	Sheeting, 40 inches wide, 56 by 56, and measuring 3.18 yards to the pound..
231	New York	Sheeting, 40½ inches wide, 88 by 16, and measuring 2.88 yards to the pound..
230	do	Sheeting, 36 inches wide, number 22 yarn, and measuring 3.6 yards to the pound..
230	do	Sheeting, 39 inches wide, number 22 yarn, and measuring 3.33 yards to the pound..
230	do	Sheeting, 40 inches wide, number 31 yarn, and measuring 3 yards to the pound..
230	do	Sheeting, 48 inches wide, number 22 yarn, and measuring 2.777 yards to the pound..
230	do	Sheeting, 68 inches wide, number 22 yarn, and measuring 2.5 yards to the pound..
230	do	Sheeting, 77 inches wide, number 22 yarn, and measuring 1.75 yards to the pound..
230	do	Sheeting, 86 inches wide, number 22 yarn, and measuring 1.538 yards to the pound..
230	do	Sheeting, 96 inches wide, number 22 yarn, and measuring 1.35 yards to the pound..
a632	Alabama	Sheeting, 31½ inches wide, and measuring 3.31 yards to the pound
211	Maryland	Sheeting, 36 inches wide, and measuring 2.84 yards to the pound
214	Massachusetts	Sheeting, 36 inches wide, and measuring 2.84 yards to the pound
226	New Hampshire	Sheeting, 36 inches wide, and measuring 2.85 yards to the pound
a634	South Carolina	Sheeting, 36 inches wide, and measuring 2.85 yards to the pound
238	North Carolina	Sheeting, 36 inches wide, and measuring 3 yards to the pound
a632	Alabama	Sheeting, 36 inches wide, and measuring 3.29 yards to the pound
a632	Georgia	Sheeting, 36 inches wide, and measuring 3.4 yards to the pound
a633	do	Sheeting, 36 inches wide, and measuring 3.75 yards to the pound
a634	South Carolina	Sheeting, 36 inches wide, and measuring 4 yards to the pound
219	Massachusetts	Print cloth, 28 inches wide, 64 by 64, and measuring 7 yards to the pound
227	New Hampshire	Print cloth, 28 inches wide, 64 by 64, and measuring 7 yards to the pound
227	do	Print cloth, 30 inches wide, 68 by 72, and measuring 6 yards to the pound
201	Great Britain	Print cloth, 32 inches wide, 64 by 64, and measuring 8 yards to the pound
227	New Hampshire	Print cloth, 35 inches wide, 68 by 72, and measuring 5 yards to the pound
233	New York	Shirting, 36 inches wide, 88 by 96, and measuring 3.12 yards to the pound
a637	Georgia	Shirting, 30 inches wide, and measuring 5.099 yards to the pound
a633	do	Shirting, 31½ inches wide, and measuring 4.6 yards to the pound
a637	do	Shirting, 34½ inches wide, and measuring 5.32 yards to the pound
198	do	Cotton cloth, 27 inches wide, 40 by 40, and measuring 4.73 yards to the pound..
198	do	Cotton cloth, 31½ inches wide, 48 by 46, and measuring 3.65 yards to the pound..
198	do	Cotton cloth, 36 inches wide, 48 by 46, and measuring 3.01 yards to the pound..
a637	do	Cotton cloth, 36 inches wide, and measuring 4.079 yards to the pound ..

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

large number of industries has been shown, the cost of labor, materials, following table a step forward is taken, and an analysis of some of producing one yard of fully described articles of cotton goods is shown, spinning, spooling, and weaving, in each instance where these were found combined in the column headed Other. Sixty-four examples of to those used in the preceding table and in the wage table, Appendix is made in 40 cases of the cost of material in the production of pig-Finally, an analysis is given in 13 cases of the cost of materials in information, the cost for fuel is also shown.

COTTON GOODS—ANALYSIS OF LABOR COST.

NOTE.—The establishment numbers correspond to those in the preceding table, and also to those in the table on page 236, Appendix A, except as noted below.

Labor cost of one yard.								Estab- lish- ment No.
Carding.	Cloth room.	Reeling and winding.	Spinning.	Spooling.	Weaving.	Other.	Total.	
\$. 001286	\$. 000731	\$. 000446	\$. 001385	\$. 000902	\$. 008152	\$. 000532	\$. 008644	a330
001803	b. 004768	000579	001457	000849	003318	000559	009093	a330
001896	b. 001089	000945	002029	001820	004619	000779	012657	a330
001440			001980		004500	001020	008540	246
001715			001950		004132	000614	008420	247
001495			001886		003751	001396	008530	248
001795			002099		004401	000845	009140	249
001448			001628		008376	002685	008252	253
001320			001465		008210	001558	007551	199
001006	b. 000851	000841	001804	001174	004108	000693	011257	a330
001322	b. 000745	000659	004414	000821	005226	008543	008824	a330
005151			005837		020108	008247	034943	231
002980			009420		009900	008380	019450	230
008190			009682		010815	003813	021000	230
003950			004553		012730	004767	028000	230
003828			004418		012378	004576	025300	230
004352			004910		013752	005086	028000	230
006076			007013		019647	007264	040080	230
006910			007976		022340	008274	045508	230
007868			009081		025444	009407	051800	230
001350	000380		002190		005110	001480	010480	a332
002363			002492	000892	005799	004759	016405	211
002306			002380	000728	004605	002863	012962	214
001810	000910		001766	000800	004060	003550	012890	228
001289			001192	000563	003162	001848	008164	a334
002130			002690		008940	000640	009370	258
001980	000350		002210		005120	001470	011140	a332
001559	000382		001147		002817	001059	006764	a333
001413	000347		001040		002374	000956	008120	a334
001953			001419	000869	003761	001821	008883	219
001290			001800		004570	002760	010360	227
001509	000170		001690	000870	004230	001530	009990	237
001739	000200		002000	001010	005010	001780	011740	201
006009			001080		008760	000480	008020	227
002980	000240		002380	001230	006020	002140	014080	283
004000			004300		012500	006300	027100	a337
001224			001256		002567	001480	006826	a333
001182	000283		000648		001934	000762	004999	a337
001278			001184		002459	001426	006347	a337
001105			000692	000258	002566	001206	006127	198
001506			001286	000384	003326	001563	008105	198
001737			001558	000406	004033	001897	009631	198
001665			001545		008269	001861	008270	a337

‡ Labor cost of dye-house help is included in this.

COTTON GOODS—ANALYSIS OF LABOR COST—Concluded.

NOTE.—The establishment numbers correspond to those in the preceding table, and also to those in the table on page 295, Appendix A, except as noted below.

Estab- lish- ment No.	State.	Description of unit.
6330	Georgia	Drilling, 29 inches wide, 70 by 48, and measuring 2.82 yards to the pound.
6330	do	Drilling, 30 $\frac{1}{2}$ inches wide, 70 by 48, and measuring 2.84 yards to the pound.
6334	South Carolina	Drilling, 30 $\frac{1}{2}$ inches wide, 70 by 48, and measuring 2.84 yards to the pound.
198	Georgia	Drilling, 31 $\frac{1}{2}$ inches wide, 62 by 48, and measuring 3.08 yards to the pound.
199	do	Drilling, 31 $\frac{1}{2}$ inches wide, 72 by 50, and measuring 3.01 yards to the pound.
6330	do	Drilling, 36 $\frac{1}{2}$ inches wide, 68 by 52, and measuring 2.43 yards to the pound.
6330	do	Drilling, 37 inches wide, 70 by 48, and measuring 2.36 yards to the pound.
6330	do	Drilling, 37 inches wide, 83 by 46, and measuring 1.6 yards to the pound.
6330	do	Drilling, 46 inches wide, 70 by 42, and measuring 2 yards to the pound.
6330	do	Drilling, 51 inches wide, 70 by 42, and measuring 1.79 yards to the pound.
6330	do	Drilling, 58 inches wide, 70 by 42, and measuring 1.58 yards to the pound.
6332	Alabama	Drilling, measuring 3.15 yards to the pound.
6333	Georgia	Drilling, measuring 3.05 yards to the pound.
6330	do	Duck, 38 inches wide, 83 by 28, and measuring 1.79 yards to the pound.
6330	do	Duck, 46 inches wide, 83 by 28, and measuring 1.49 yards to the pound.
6330	do	Duck, 51 inches wide, 83 by 28, and measuring 1.32 yards to the pound.
6330	do	Duck, 57 inches wide, 83 by 28, and measuring 1.19 yards to the pound.
213	Maryland	Duck, 22 by 36, and measuring 1 yard to the pound.
212	do	Duck, 28 by 36, and measuring 2 yards to the pound.
241	North Carolina	Plaid, 27 inches wide, 40 by 40, and measuring 4 yards to the pound.
249	Virginia	Plaid, 27 inches wide, 44 by 44, and measuring 4.25 yards to the pound.

METALS AND METALLIC GOODS—ANALYSIS OF COST OF MATERIAL.

Estab- lish- ment No.	State.	Description of unit.
385	Alabama	One ton run of furnace foundry pig iron (Alabama ore)
399	New York	One ton run of furnace foundry pig iron (New York ore)
413	Ohio	One ton run of furnace foundry pig iron (Lake Superior ore)
405	do	One ton run of furnace foundry pig iron (Hooking Valley and Lake Superior ore).
409	do	One ton run of furnace foundry pig iron (Hanging Rock ore)
414	do	One ton run of furnace foundry pig iron (Hanging Rock ore)
6714	do	One ton run of furnace foundry pig iron (Hanging Rock ore)
6715	do	One ton run of furnace foundry pig iron (Mahoning Valley and Lake Superior ore).
408	do	One ton run of furnace foundry pig iron (Mahoning Valley and Lake Superior ore).
6716	do	One ton run of furnace foundry pig iron (Mahoning Valley and Lake Superior ore).
435	Tennessee	One ton run of furnace foundry pig iron (Tennessee ore)
6717	do	One ton run of furnace foundry pig iron (Tennessee ore)
430	Virginia	One ton run of furnace foundry pig iron (Virginia ore)
487	do	One ton run of furnace foundry pig iron (Virginia ore)
438	do	One ton run of furnace foundry pig iron (Virginia ore)
6718	West Virginia	One ton run of furnace foundry pig iron (Lake Superior ore)
6719	do	One ton run of furnace foundry pig iron (West Virginia ore)
392	Maryland	One ton number one foundry pig iron.
400	New York	One ton number two foundry pig iron.
377	Great Britain	One ton number three foundry pig iron.
6720	Pennsylvania	One ton run of furnace foundry pig iron.
6721	Belgium	One thousand kilograms (2,205 pounds) white pig iron.
6722	Germany	One thousand kilograms (2,205 pounds) white pig iron.
6723	Ohio	One ton Bessemer pig iron.
400	do	One ton Bessemer pig iron.
6724	Pennsylvania	One ton Bessemer pig iron.
424	do	One ton Bessemer pig iron.
425	do	One ton Bessemer pig iron.

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

COTTON GOODS—ANALYSIS OF LABOR COST—Concluded.

NOTE.—The establishment numbers correspond to those in the preceding table, and also to those in the table on page 295, Appendix A, except as noted below.

Labor cost of one yard.								Estab- lish- ment No.
Carding.	Cloth-room.	Reeling and winding.	Spinning.	Spooling.	Weaving.	Other.	Total.	
\$0.001490	b. 0.000838	\$0.000740	\$0.001594	\$0.001035	\$0.003621	\$0.000611	\$0.000929	a820
.001479	b. 0.000834	.000738	.001589	.001030	.003603	.000608	.000981	a830
.001408			.001201	.000566	.003183	.001859	.008217	a834
.001097			.001522	.000396	.003941	.001852	.009408	198
.001758			.001946		.004277	.008091	.011072	199
.001729	b. 0.000975	.000845	.001832	.001204	.004210	.000711	.011506	a830
.001777	b. 0.001002	.000885	.001901	.001237	.004328	.000730	.011860	a830
.002024	b. 0.001480	.001808	.002808	.001828	.006392	.001078	.017518	a830
.002100	b. 0.001184	.001046	.002246	.001462	.005115	.000963	.014016	a830
.002245	b. 0.001322	.001131	.002505	.001633	.003712	.000963	.015611	a830
.002851	b. 0.001494	.001821	.002842	.001846	.009457	.001089	.017700	a830
.002049	.000400		.002107		.005330	.001537	.011623	a832
.001737	.000126		.001270		.002918	.001180	.007240	a833
.002347	b. 0.001325	.001171	.002512	.001615	.005721	.000964	.015675	a830
.002581	b. 0.001588	.001410	.003013	.001961	.006859	.001157	.018869	a830
.003188	b. 0.001797	.001689	.003410	.002219	.007764	.001311	.021278	a830
.003522	b. 0.001985	.001755	.003767	.002452	.008577	.001447	.023505	a830
.007113			.008462		.010181	.007222	.033378	213
.002243	.000801		.009445		.004167	.002644	.018306	212
.001100			.002300		.008000	.001400	.012800	241
.001253			.002130		.009147	.003260	.015790	249

b Labor cost of dye-house help is included in this.

METALS AND METALLIC GOODS—ANALYSIS OF COST OF MATERIAL.

Material.								Estab- lish- ment No.
Charcoal.	Coal.	Coke.	Lime- stone.	Iron cin- der.	Lake Superior ore.	Native ore.	Ore.	Total.
		\$4 03	\$0 82			\$2 57		\$6 92
	\$1 07	3 91	58			3 41		9 52
		4 27	66	\$0 81	\$6 94			12 08
	1 90		1 15	1 25	2 75	4 25		11 30
		4 50	70			4 95		10 15
	1 40	2 60	80			5 00		9 80
		4 80	85			6 30		11 95
		4 16	56		4 30	3 15		12 17
		4 32	80	83	2 77	3 90		12 62
		4 05	45		5 25	3 25		13 00
	10	5 27	35			4 29		10 01
	3 60	1 91	25			5 06		10 82
		3 52	45			5 04		9 01
		5 05	1 08	55		3 80		10 48
		3 87	78			6 05		10 70
		4 35	63	70	7 65			13 38
		3 06	1 00			6 87		10 95
	5 88		1 24				\$7 65	14 77
	5 18		75				8 04	13 92
		2 70	40				3 23	6 33
		3 50	50		9 75			13 75
		3 40	30				4 68	8 38
		2 83	67				6 86	10 36
		3 68	61		10 72			15 01
		5 10	72		9 08			14 90
	1 91	2 56	54				9 75	14 76
		2 71	60		10 60			13 91
		2 80	56		10 50			13 86

METALS AND METALLIC GOODS—ANALYSIS OF COST OF MATERIAL—Concl'd.

NOTE.—The establishment numbers correspond to those in the preceding table, and also to those in the tables on page 295, Appendix A, except as noted below.

Estab- lish- ment No.	State.	Description of unit.
407	Ohio	One ton foundry pig iron, soft, silvery (Ohio brown hematite ore)
406	do	One ton foundry pig iron, soft, silvery (Ohio brown hematite ore)
411	do	One ton foundry pig iron, soft, silvery (Ohio brown hematite ore)
a725	do	One ton foundry pig iron, soft, silvery (Ohio brown hematite ore)
a726	do	One ton foundry pig iron, soft, silvery (Ohio brown hematite ore)
a727	do	One ton foundry pig iron, soft, silvery (Ohio brown hematite ore)
a728	Germany	One thousand kilograms (2,205 pounds) mill pig iron
428	Pennsylvania	One ton number one mill pig iron
425	do	One ton low grade mill pig iron
a730	Ohio	One ton cold-blast charcoal pig iron (Hanging Rock ore)
a731	do	One ton cold-blast charcoal pig iron (Hanging Rock ore)
891	Maryland	One ton hot-blast charcoal pig iron

a The wages of employes in this establishment were not reported; therefore the number will not be found in the wage table, Appendix A.

GLASS—COST OF FUEL AND ANALYSIS OF COST OF MATERIAL.

Estab- lish- ment No.	State.	Description of unit.
288	Illinois	One box (50 feet) average size, single strength window glass
296	Ohio	One box (50 feet) average size, single strength window glass
308	Pennsylvania	One box (50 feet) 12 by 28 inches, single strength, window glass
309	do	One box (50 feet) 12 by 28 inches, single strength, window glass
300	do	One gross flint eight-ounce Philadelphia oval bottles
302	do	One gross flint eight-ounce Philadelphia oval bottles
301	do	One gross flint pint flasks
304	do	One gross flint pint flasks
289	Kentucky	One gross quart Mason fruit jars (without trimmings)
305	Pennsylvania	One gross quart Mason fruit jars (without trimmings)
306	do	One gross quart beer bottles
307	do	One gross quart beer bottles
312	do	One dozen number two, crimp top, lime, lamp chimneys

METALS AND METALLIC GOODS—ANALYSIS OF COST OF MATERIAL—Concl'd.

NOTE.—The establishment numbers correspond to those in the preceding table, and also to those in the table on page 295, Appendix A, except as noted below.

Material.									Estab- lish- ment No.
Charcoal.	Coal.	Coke.	Lime- stone.	Iron cin- der.	Lake Superior ore.	Native ore.	Ore.	Total.	
	\$2 67	\$1 30	\$0 72			\$5 37		\$10 06	407
	3 27		90			6 25		10 42	408
	2 40	1 20	80			5 67		10 07	411
	2 40	1 20	80			5 67		10 07	a725
	4 67		1 00			4 95		10 62	a726
	3 60		1 12			5 50		10 22	a727
		2 23	52				\$5 29	8 04	a728
		3 15	1 32			7 50		11 97	426
		3 00	1 12			5 00		9 12	425
\$12 30			15			6 25		18 70	a730
10 80			25			5 83		16 88	a731
6 53			13				11 46	18 12	391

GLASS—COST OF FUEL AND ANALYSIS OF COST OF MATERIAL.

Material.									Fuel.	Estab- lish- ment No.
Arassic.	Char- coal.	Cullet.	Lime.	Salt- cake.	Soda- ash.	Sand.	Other.	Total.		
\$0.00880	\$0.00880	\$0.01900	\$0.03330	\$0.18220		\$0.04550		\$0.29850	\$0.33660	288
.01970	.00770	.01440	.02868	.06430	\$0.13090	.04688		.33256	.24260	296
.02000	.01000		.02700	.20000	.13200	.03500		.42400	.39800	308
.02000	.01000		.03900	.16000	.15000	.06000		.43000	.14000	309
			.02000		.26400	.03500	\$0.05300	.37200	.20700	300
			.02000		.27000	.05600	.03500	.38100	.14500	302
			.05000		.44700	.07600	.00780	.67080	.21600	301
			.04880		.56840	.12152	.20000	.93872	.10000	304
		.06900	.07200		.67300	.10000		.88400		289
			.10000		.88000	.17000		1.15000	.32000	305
			.13000		.90000	.20000		1.23000	.60000	306
			.15000		.96100	.18300		1.31300	.85000	307
			.00460		.03000	.00750	.00500	.04710		312

In securing information from foreign countries it sometimes occurred that the facts could not be ascertained in the same form as were those from the United States, and thus it was impossible to place such facts in the preceding table, as would have been desirable. Such information, however, being deemed of great value to the manufacturers of this country, it is given as secured, and the following tables, mostly drawn from official sources, show the various elements as designated in their headings:

COST OF SPINNING ONE POUND OF COTTON YARN IN ALSACE.

Numbers (English scale).	Expenses (not including cotton).				
	Labor.	Fuel.	Interest and depreciation.	Other.	Total.
18 and under.....	\$0. 01388	\$0. 00511	\$0. 01534	\$0. 00660	\$0. 04093
18 to 24.....	.01809	.00667	.02100	.00657	.05333
24 to 30.....	.02259	.00832	.02497	.01070	.06658
30 to 35.....	.02713	.01000	.02735	.01285	.07733
35.....	.03056	.00916	.02779	.01333	.08584
40.....	.03308	.00992	.02875	.01985	.09260
42.....	.03562	.01078	.03238	.02155	.10058
45.....	.04126	.01232	.03700	.02467	.11525
47.....	.04512	.01354	.04061	.02701	.12628
49.....	.04888	.01434	.04304	.02868	.13494
52.....	.05000	.01499	.04500	.02999	.13998
54.....	.05280	.01600	.04791	.03200	.14671
57.....	.05788	.01737	.05310	.03473	.16208
59.....	.06153	.01846	.05537	.03691	.17227
61.....	.06717	.02015	.06045	.04030	.18807
64.....	.07040	.02112	.06336	.04224	.19712
66.....	.07394	.02232	.06635	.04436	.20717
69.....	.07787	.02335	.07008	.04687	.21817
71.....	.08224	.02466	.07401	.04985	.23026
73.....	.08779	.02603	.08081	.05387	.25140
75.....	.09461	.02838	.08515	.05677	.26491
78.....	.09778	.02933	.08800	.05886	.27377
80.....	.10231	.03069	.09209	.06138	.28647
82.....	.10731	.03219	.09658	.06438	.30046
85.....	.11281	.03384	.10153	.06769	.31567
87.....	.12054	.03616	.10648	.07232	.33750
90.....	.12940	.03882	.11646	.07764	.36232
92.....	.13663	.04099	.12298	.08196	.38258
94.....	.14193	.04258	.12774	.08515	.39740
97.....	.14764	.04429	.13288	.08858	.41339
99.....	.15384	.04614	.13845	.09230	.43073
101.....	.15941	.04782	.14347	.09564	.44934
104.....	.16416	.04925	.14776	.09850	.45967
106.....	.16602	.04980	.14943	.09962	.46487
108.....	.17460	.05237	.15714	.10475	.48366
111.....	.17959	.05387	.16162	.10774	.50282
113.....	.18409	.05522	.16568	.11045	.51544
116.....	.19047	.05713	.17142	.11428	.53330
118.....	.19130	.05739	.17217	.11477	.53563
120.....	.20091	.06037	.18061	.12054	.56253
123.....	.20657	.06196	.18590	.12393	.57396
125.....	.21255	.06376	.19130	.12752	.59013
127.....	.22000	.06600	.19600	.13200	.61000
130.....	.22564	.06768	.20307	.13537	.63176
136.....	.24175	.07252	.21758	.14505	.67690
142.....	.25682	.07764	.23294	.15529	.72469
147.....	.27500	.08250	.24750	.16500	.77000
153.....	.29333	.08800	.26400	.17600	.82133
159.....	.31428	.09428	.28285	.18856	.87997
165.....	.33082	.09924	.29772	.19849	.92628
171.....	.34920	.10476	.31428	.20951	.97775
177.....	.36974	.11092	.33277	.22184	1. 03627

COST OF SPINNING ONE POUND OF COTTON YARN IN ENGLAND.

Numbers (English scale).	Expenses (not including cotton).				
	Labor.	Fuel.	Interest and depreciation.	Other.	Total.
18 and under.....	\$0. 01267	\$0. 00148	\$0. 00820	\$0. 00551	\$0. 02786
18 to 24.....	.01664	.00193	.01064	.00717	.03638
24 to 30.....	.02054	.00242	.01328	.00894	.04518
30 to 35.....	.02468	.00290	.01597	.01074	.05429
35.....	.02886	.00305	.01679	.01180	.05710
40.....	.02811	.00330	.01818	.01224	.06183
42.....	.03052	.00339	.01975	.01328	.06714
45.....	.03484	.00410	.02261	.01521	.07698
47.....	.03835	.00450	.02481	.01669	.08435
49.....	.04064	.00477	.02630	.01769	.08940
53.....	.04249	.00499	.02750	.01849	.09347
54.....	.04533	.00532	.02933	.01963	.09961
57.....	.04920	.00579	.03183	.02141	.10823
59.....	.05218	.00615	.03357	.02276	.11466
61.....	.05709	.00671	.03706	.02486	.12572
64.....	.05984	.00704	.03872	.02604	.13164
66.....	.06285	.00740	.04067	.02735	.13827
68.....	.06619	.00778	.04282	.02881	.14560
71.....	.06989	.00821	.04523	.03043	.15376
73.....	.07632	.00897	.04838	.03322	.16779
75.....	.08042	.00946	.05203	.03500	.17691
78.....	.08311	.00978	.05378	.03618	.18285
80.....	.08607	.01023	.05627	.03785	.19132
82.....	.09121	.01072	.05802	.03970	.20065
85.....	.09589	.01128	.06204	.04173	.21094
87.....	.10245	.01204	.06629	.04459	.22537
90.....	.11000	.01293	.07117	.04788	.24198
93.....	.11614	.01366	.07516	.05055	.25550
94.....	.12063	.01419	.07806	.05250	.26538
97.....	.12549	.01475	.08120	.05463	.27607
99.....	.13076	.01538	.08461	.05691	.28766
101.....	.13550	.01593	.08769	.05897	.29808
104.....	.13987	.01641	.09029	.06074	.30781
106.....	.14112	.01660	.09131	.06143	.31046
108.....	.14841	.01745	.09602	.06480	.32648
111.....	.15204	.01796	.09877	.06644	.33581
113.....	.15648	.01840	.10125	.06811	.34424
116.....	.16189	.01905	.10475	.07047	.35616
118.....	.16260	.01913	.10521	.07077	.35771
120.....	.17077	.02009	.11050	.07433	.37569
123.....	.17558	.02065	.11380	.07642	.38625
125.....	.18067	.02126	.11690	.07864	.39747
127.....	.18700	.02200	.12100	.08140	.41140
130.....	.19178	.02256	.12409	.08348	.42191
136.....	.20548	.02417	.13295	.08944	.45204
142.....	.22000	.02588	.14284	.09576	.48398
147.....	.23374	.02750	.15124	.10174	.51422
153.....	.24933	.02933	.16133	.10858	.54852
159.....	.26714	.03142	.17284	.11628	.58768
165.....	.28119	.03307	.18186	.12239	.61851
171.....	.29682	.03491	.19206	.12920	.65299
177.....	.31435	.03696	.20335	.13680	.69146

The following table shows the wages paid per spindle, and the cost of coal, tallow, and oil per spindle, in the cotton-spinning mills located in the Oldham district, England. The time covered is for the quarter commencing March 28, 1885, and ending June 27, 1885, being twelve weeks of fifty-six and one-half hours each (short time being reduced to full time). The mills were engaged during the period stated on number 32 twist or its equivalent:

COST OF PRODUCING COTTON YARN (NUMBER 32 TWIST) AT OLDHAM, ENGLAND.

Items of cost.	Mill number one.	Mill number two.	Mill number three.
Labor cost per spindle during the twelve weeks	\$0.164	\$0.170	\$0.171
Cost of coal, tallow, and oil per spindle during the twelve weeks .....	.026	.026	.030
Average cost of labor per spindle for three mills			\$0.168+
Average cost of coal, tallow, and oil per spindle for three mills .....			.027+
Cost of cotton consumed per spindle (eleven pounds)			1.220
Depreciation of plant per spindle .....			.062
Average cost of carriage per spindle .....			.013
Total cost per spindle			1.480
Value of product per spindle (ten pounds, at 17 cents per pound)			1.700
Manufacturer's margin .....			.220

The above margin of 22 cents is for profit, interest, discount, brokerage, commissions, taxes, repairs, insurance, and incidental expenses, such as water, gas, roller leather, cloth, skip paper, skips, belting, lacing, engine packing, wrapping paper, twine, etc., also office expenses, etc., for the period of twelve weeks; on this basis there would be a margin for a year of 95½ cents. The above statement shows a fair working margin of profit in cotton spinning for medium counts, but owing to the fact that number 32 twist or its equivalent had to be marketed at considerably less than 17 cents per pound the majority of mills in the Oldham district closed the quarter ending June 27, 1885, either with loss or without profit. The mills selected for averaging the labor cost per spindle, and the coal, tallow, and oil cost per spindle, are fairly representative ones in the Oldham district. For the quarter ending June 27, 1885, one of these companies made no profit, one lost money, and one paid a small dividend. All the companies named are limited-liability organizations, and are economically managed. The machinery used in the mills named was made by representative firms. Self-acting mules were employed in each mill.

The following table shows the per cent. labor cost, etc., of producing number 32 twist, the L. M. American cotton being calculated at 11 cents per pound, and the selling price of the cotton yarn at 17 cents per pound, the wages being based on the prices paid in the Oldham district prior to the strike of July 20, 1885, which were list prices of January, 1876, less 10 per cent:

ANALYSIS OF COST OF PRODUCING NUMBER 32 TWIST AT OLDHAM, ENGLAND.

Items.	Per cent.
Cotton	71.76
Labor cost	0.88
Depreciation	2.06
Coal, tallow, and oil	1.52
Carriage .....	.77
Profit, interest, etc., insurance, and incidental expenses	12.95
Total	100

If we take the product of number 32 twist to be 13 ounces avoirdupois per week per spindle, with self-acting mule frames, and the combined wages of a minder and his piecers to be \$13.98 for one week, from a pair of mules containing 2,124 spindles, the labor cost of 10 pounds of number 32 twist in the spinning department will be 8.1 cents, which, divided by \$1.70, the selling price of 10 pounds at 17 cents per pound, will give 4.76 per cent. for the labor cost for spinning.

The entire labor cost for spinning number 32 twist, as has been shown in the preceding table, is 9.88 per cent., which, less 4.76 per cent. for the spinning department, leaves 5.12 per cent. to cover the labor cost in the preparatory and power departments and the cost of management.

The above calculations clearly indicate that the percentage of labor cost in all departments of cotton spinning has been minimized to such an extent for medium counts of yarn that it bears but a small proportion to the value of the finished product.

In the Bolton and Manchester districts, where finer counts are spun, the labor cost, as well as the margin of profit, is larger than has been given for the Oldham district, where only coarse and medium counts of cotton yarn are produced.

A margin of 6 cents per pound between the raw material and number 32 cop twist is considered by British spinners very remunerative, and with such a margin a large return upon the capital invested is usually made; for in properly-managed modern mills number 32 cop twist can be produced and marketed on a margin of 4½ cents per pound without loss.

PRODUCTION, ETC., OF COAL IN FRANCE, 1853-83.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Year.	Employés.				Production.				Labor cost per ton.
	Number.	Amount of wages.	Average wages of each.		Tons.	Tons per employé.			
			Yearly.	Daily.		Yearly.	Daily.		
1853	40,958	\$4,756,871	\$116	\$0.42	5,937,000	144	.529	\$0.80	
1858	56,035	7,540,124	134	.49	7,352,000	131	.479	1.02	
1861	65,619	9,094,932	138	.49	9,395,000	143	.512	.96	
1864	77,342	11,106,895	144	.50	11,201,000	144	.501	.99	
1866	79,909	12,195,863	152	.53	12,234,000	153	.533	.99	
1869	84,484	13,718,054	162	.57	13,500,000	160	.568	1.01	
1870	82,673	13,948,832	168	.58	13,179,000	159	.560	1.05	
1872	91,899	17,391,809	189	.64	16,100,000	175	.588	1.08	
1873	101,844	20,168,114	197	.66	17,479,000	171	.569	1.15	
1874	102,985	21,015,963	204	.69	16,907,000	164	.554	1.24	
1875	105,366	21,665,408	205	.69	16,956,000	161	.542	1.28	
1876	107,567	21,262,617	196		17,101,000	158		1.24	
1877	105,813	19,917,021	187		16,804,000	158		1.18	
1878	103,056	19,441,083	187		16,960,000	164		1.14	
1879	99,155	18,901,648	190		17,110,000	172		1.10	
1880	103,921	20,913,094	201		18,804,000	180		1.11	
1881	108,002	21,048,562	208		19,765,000	191		1.06	
1882	108,300	22,355,180	212	.71	20,604,000	190	.643	1.08	
1883	112,000	24,544,003	217	.74	21,334,000	196	.644	1.10	

PRODUCTION OF COAL IN 1883, IN THE EIGHT LARGEST PRODUCING DISTRICTS IN FRANCE. a

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Departments.	Within the mines.			Outside the mines.		
	Employés.	Days worked.	Wages.	Employés.	Days worked.	Wages.
Allier.....	3,242	290	\$0 73	1,076	292	\$0 40
Aveyron.....	2,580	300	83	1,726	300	55
Gard.....	8,083	286	92	4,109	286	63
Loire.....	12,688	285	90	5,816	288	63
Nord.....	15,510	300	77	4,370	300	45
Pas-de-Calais.....	21,403	303	79	5,869	290	64
Saone-et-Loire.....	4,898	305	81	2,319	306	53
Tarn.....	1,294	249	72	713	241	58

Departments.	Within and outside the mines.				Average price per ton.	Taxes in 1884.
	Total employés.	Tons produced.	Tons daily per employé.	Labor cost per ton.		
Allier.....	4,918	956,000	.66	\$0 98	\$2 41	\$36,973
Aveyron.....	4,306	826,000	.63	1 13	2 12	10,181
Gard.....	12,192	1,972,000	.53	1 52	2 45	83,770
Loire.....	18,504	3,588,000	.69	1 18	2 90	120,162
Nord.....	19,880	3,789,000	.63	1 10	2 20	42,704
Pas-de-Calais.....	27,272	6,155,000	.75	1 02	2 24	139,263
Saone-et-Loire.....	7,217	1,381,000	.62	1 15	2 62	38,374
Tarn.....	2,007	325,000	.55	1 03	8 09	13,326

a There is a slight unexplainable difference between the figures here shown for Pas-de-Calais and what appear in the succeeding table.

PRODUCTION OF COAL IN 1883 IN THE DEPARTMENT OF PAS-DE-CALAIS, FRANCE.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Mines.	Employés.					Production.		
	Within the mines.		Outside the mines.			Total.	Tons.	Tons annually per employé.
	Men.	Children.	Men.	Women.	Children.			
Dourges.....	1,096	177	177	13	14	1,477	272,000	184
Courrières.....	2,236	154	567	32	65	3,052	850,000	278
Lens and Douvein.....	3,122	352	891	186	17	4,568	1,170,000	236
Grenay.....	2,168	399	617	72	9	3,265	775,000	237
Noeux.....	2,233	234	539	62	40	3,108	735,000	236
Bruay.....	1,910	201	302	68	8	2,489	569,000	228
Marles.....	1,528	167	394	23	57	2,169	526,000	212
Terfay.....	816	84	174	42	9	1,125	187,000	160
Auchy-au-Bois.....	418	60	140	34	29	681	37,000	54
Fléchinelle.....	211	24	80	5	10	330	48,000	145
Liévin.....	1,180	201	351	87	4	1,823	452,000	217
Vendin.....	218	25	49	9	2	308	41,000	135
Meurchin.....	472	57	187	10	7	733	177,000	241
Carvin.....	805	69	183	11	7	1,075	178,000	165
Ostricourt.....	146	23	27	11	9	216	44,000	203
Courcelles-l'Lens.....	121	10	23	13	7	174	25,000	143
Hardinghen.....	389	28	127	5	24	573	61,000	166

PRODUCTION, ETC., IN 1883, IN FIVE COAL MINES IN FRANCE.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Localities.	Within the mines.			Outside the mines.		
	Employés.	Days worked.	Wages.	Employés.	Days worked	Wages.
Champagne (Cantal).....	375	280	\$0.74	125	288	\$0.51
Decize (Nièvre).....	948	300	.70	512	300	.33
Carmaux (Tarn).....	1,294	249	.72	713	241	.59
Montrelais (Loire Inf.).....	124	295	.58	64	252	.41
St. Saur (Deux Sèvres).....	103	263	.65	62	253	.46

Localities.	Within and outside the mines.				Average price per ton.	Maximum working depth (feet.)	Average working depth (feet.)	Thickness of vein (feet.)
	Total employés.	Tons produced.	Tons daily per employé.	Labor cost per ton.				
Champagne (Cantal).....	500	42,463	.30	\$2 25	\$2 90	525	282	17
Decize (Nièvre).....	1,460	194,306	.47	1 37	2 60	2,037	607	12
Carmaux (Tarn).....	2,007	325,480	.66	1 03	2 79	984	557	6
Montrelais (Loire Inf.).....	188	10,243	.36	1 44	2 81	1,205	577	4
St. Saur (Deux Sèvres).....	165	22,062	.52	1 12	8 09	771	377	5

The following estimate as to the cost of production of a ton of coal in the north of France was given in testimony before the French Tariff Commission in 1877:

Wages:

Tunnelling and laying tracks.....	\$0.565
Sundry labor inside mines.....	.530
Sundry labor outside of mines.....	.237

1.332

Sundry material used.....	.604
Taxes on mines.....	.034
General expenses.....	.129

2.099

The following extracts from testimony given before the French Tariff Commission in 1877 give a very fair idea of the explanation given by various mining experts and engineers to account for the greater cost of coal production in France as compared with other countries of Europe:

"The condition of the coal deposits in France is not so favorable as that of other countries, the galleries requiring a great quantity of timber for supports, and the coal being of a character that requires much manipulation to free it from foreign matter, from which causes results a production per workman much inferior to that in other countries.

"However, the daily wages of coal miners in other countries is but 3.75 francs per day, while the French miner is paid about 4.25 per day.

"When the foreign coal mines are compared with those of France, the conditions of inferiority are abundant. We find these conditions of inferiority not only in the geological condition which requires expensive works, but also in the greater cost of labor.

"In the first place, the greater facility of extraction in England must be considered. In France it is necessary to mine the coal at consider-

able depth, while certain English coal mines are worked by simple galleries.

"The influence of the difference which exists between the deposits of the two countries (France and England) is shown not only in the increased cost of labor, but also in the amount of materials necessary, and in the general expenses of working.

"In France the cost of the wood alone used in the support of the galleries is 20 cents per ton of coal mined, while in England it averages but one-fifth of that sum.

"The increased cost of labor outside of the mines is owing 'to the various manipulations rendered necessary at the mouth of the mines. In the north of France the deposits are thin and irregular. To work them it becomes necessary to break the rock which surrounds them, and the coal always contains some of this rock, which it requires much care and time to separate.'

"In the north of France, the galleries require to be braced with timbers their whole length, and frequently the timber supports are almost continuous."

COST OF PRODUCTION, ETC., IN 1883, OF IRON ORE IN FRANCE.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Departments.	Mines.	Within the mines.			Outside the mines.			Within and outside the mines.			
		Employés.	Days worked.	Wages.	Employés.	Days worked.	Wages.	Total employés.	Tons produced.	Tons daily per employé.	Labor cost per ton.
Ardèche	6	776	285	\$0 67	137	236	\$0 48	913	187,985	.74	\$0 86
Ariège	5	449	243	55	19	255	49	468	33,285	.24	1 88
Aveyron	12	52	300	77	13	310	54	65	63,500	.....	.....
Isère	7	215	256	74	108	244	45	323	38,275	.47	1 38
Meurthe	31	2,090	275	1 01	380	284	68	2,470	1,717,111	2.51	38
Moselle .....	.....	.....	.....	.....	547	269	72	.....	423,057	2.68	25

COST OF PRODUCTION, ETC., OF IRON ORE IN FRANCE, 1853-83.

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Years.	Employés.			Production.		Labor cost per ton.	Average price per ton.
	Number.	Amount of wages.	Average yearly wages.	Tons.	Tons yearly per employé.		
1853	15,684	\$1,092,381	\$65	3,318,000	211	\$0 23	\$0 63
1858	17,934	1,24,700	85	3,933,000	219	29	70
1861	16,577	1,769,810	107	3,898,000	234	45	73
1864	14,879	1,31,210	116	3,998,000	268	43	76
1866	12,263	1,47,860	126	3,790,000	309	41	70
1868	9,814	1,46,780	133	3,005,000	322	41	68
1869	9,987	1,20,480	142	3,461,000	347	41	69
1870	9,415	1,67,650	124	2,899,000	308	40	66
1871	7,295	1,36,050	128	2,009,000	275	47	76
1872	9,605	1,63,810	144	3,081,000	328	45	85
1873	11,386	1,58,590	163	3,051,000	261	61	.....
1874	10,044	1,34,710	163	2,516,000	250	65	1 14
1875	9,638	1,32,780	169	2,505,000	260	65	1 06
1876	9,296	1,55,580	167	2,393,000	257	65	1 08
1877	9,151	1,36,640	178	2,426,000	265	67	1 07
1878	8,468	1,55,220	172	2,489,000	292	59	90
1879	6,942	1,54,670	172	2,271,000	327	58	97
1880	8,044	1,56,720	180	2,674,000	357	51	90
1881	8,600	1,646,290	191	3,032,000	352	54	96
1882	9,438	1,821,920	193	3,467,000	367	52	94
1883	8,820	1,666,820	191	3,298,000	374	51	96

PRODUCTION OF ILLUMINATING GAS, COKE, AND TAR IN CERTAIN DEPARTMENTS OF FRANCE.^a

[NOTE.—In this table 1,000 kilograms (2,205 pounds) are considered a ton.]

Departments.	Employés.			Production.						Average price.		
	Number.	Days worked.	Wages.	Thousand feet gas.		Tons coke.		Tons tar.		Thousand feet of gas.	Ton of coke.	Ton of tar.
				Yearly.	Yearly per employé.	Yearly.	Yearly per employé.	Yearly.	Yearly per employé.			
Bouches-du-Rhône	262	365	90 92	530,559	2,025	35,000	133	2,600	9 9	1 80	7 72	90 65
Gironde	700	365	58	600,100	857	53,000	75	4,800	6 8	1 09	5 79	9 65
Hérault	223	365	58	148,260	665	13,000	58	600	2 7	2 18	4 82	11 58
Loire	369	365	68	359,424	974	29,000	81	2,300	6 2	1 58	4 24	9 13
Loire Inférieure	280	365	68	240,040	923	10,000	38	1,000	8 8	1 37	7 72	13 51
Meurthe-et-Moselle	232	336	70	119,102	513	5,900	25	500	2 1	1 80	7 33	9 65
Nord	990	365	68	1,369,110	1,383	98,000	98	12,000	12 1	1 37	4 19	8 70
Pas-de-Calais	840	365	63	338,103	904	23,500	75	2,300	6 8	1 37	4 82	9 65
Rhône	428	360	1 25	585,274	1,368	50,200	117	5,200	12 1	1 31	8 68	9 20
Seine	3,813	363	1 60	9,742,976	2,553	663,700	174	57,700	15 1	1 37	5 31	13 90

^a Two hundred and seven establishments are covered by this table, about 28 per cent. of the whole number.

PRODUCTION OF ROLLED IRON IN WESTPHALIA, GERMANY, 1878. ^a

Classification.	Hamm.						Nachrodt.			
	Pounds per employé daily.			Daily earnings.			Pounds per employé daily.		Daily earnings.	
	1869.	1873.	1878.	1869.	1873.	1878.	1873.	1878.	1873.	1878.
First puddler	3,300	3,300	3,498	\$1 16	\$1 34	\$1 08	2,644	2,840	\$1 33	\$1 01
Second puddler	3,300	3,300	3,498	85	1 01	82	2,644	2,840	98	88
First heater	9,680	9,900	11,000	1 06	1 30	1 20	7,689	13,648	1 60	1 20
Second heater	9,680	9,900	11,000	58	76	79	7,689	13,648	1 11	87
Third heater	9,680	9,900	11,000	48	60	45				
Head roller	9,680	9,900	11,000	1 06	1 30	93	7,689	13,648	1 55	1 35
Rougher	9,680	9,900	11,000	68	85	59	7,689	13,648	1 13	87
Catcher	9,680	9,900	11,000	58	70	47	7,689	13,648	93	63
Hammerman	20,900	20,900	23,400	92	1 03	1 01			96	77
Hammerman's helper			23,400	41	48	46			48	39
Blacksmith				48	63	56			1 03	80
Laborer				44	53	46			60	44

Classification.	Lippstadt.						Werdohl.					
	Pounds per employé daily.			Daily earnings.			Pounds per employé daily.			Daily earnings.		
	1869.	1873.	1878.	1869.	1873.	1878.	1869.	1873.	1878.	1869.	1873.	1878.
First puddler	3,060	3,300	3,300	\$1 18	\$1 44	\$1 04	2,200	1,870	2,750	\$0 96	\$0 98	\$1 06
Second puddler	3,060	3,300	3,300	54	76	69	2,200	1,870	2,750	53	63	81
First heater	15,400	16,500	24,200	1 25	1 63	1 59	14,300	15,400	19,800	1 06	2 28	2 16
Second heater	15,400	16,500	24,200	53	1 26	69	14,300	15,400	19,800	96	1 35	1 40
Third heater	15,400	16,500	24,200	68	91	79	14,300	15,400	19,800	60	68	74
Roller	15,400	16,500	24,200	84	1 08	1 27	14,300	15,400	19,800	1 88	2 18	1 83
Rougher	15,400	16,500	24,200	93	1 18	1 06	14,300	15,400	19,800	72	1 20	1 30
Catcher	11,000	11,000	11,000	60	66	55	14,300	15,400	19,800	63	1 01	1 20
Hammerman				1 01	1 73	1 30	14,300	15,400	19,800	87	96	1 06
Hammerman's help				52	85	70	14,300	15,400	19,800	41	46	55
Blacksmith				44	68	54				60	70	72
Laborer				30	48	41				41	48	46

^a It is asserted by prominent manufacturers and others in position to know that the wages in 1885 were substantially the same as in 1878.

COST OF PRODUCTION OF 1,000 KILOGRAMS (2,205 POUNDS) OF BAR IRON IN WEST-PHALLIA IN 1878.^a

Items of expense.	Hamm.		Nachrodt.		Lippstadt.		Joint stock company.		Private firm.	
	Amount	Per cent.	Amount	Per cent.	Amount	Per cent.	Amount	Per cent.	Amount	Per cent.
Coal	\$2 44	7.96	\$2 59	6.82	\$2 63	7.69	\$2 14	7.59	\$2 62	9.06
Transportation of coal	1 23	4.02	1 85	3.56	1 90	5.56	53	1.88	1 07	3.70
Raw iron	16 13	52.64	18 63	49.05	17 59	51.45	17 26	61.23	14 17	49.00
Transportation of raw iron	1 08	3.53	1 61	4.23	1 63	4.77	82	2.91	1 82	6.29
Labor	5 69	18.57	7 73	20.36	5 01	14.65	4 86	17.24	5 60	19.36
Official charges	26	.85	52	1.37	49	1.43	12	.43	60	2.06
Ordinary expenses	2 16	7.05	2 12	5.58	1 85	5.41	1 08	3.83	1 71	5.91
Miscellaneous	69	2.25	1 95	5.14	1 90	5.56	81	2.87	1 83	6.69
Interest, etc	96	3.13	1 43	3.89	1 19	3.48	57	2.02	.....	.....
Total	30 64	100.00	37 98	100.00	34 19	100.00	28 19	100.00	28 92	100.00

^a It is asserted by prominent manufacturers and others in a position to know that the cost of production in 1885 was not very much different from what it was in 1878.

SHARE OF LABOR AND CAPITAL IN COAL MINING—PROVINCE OF HAINAUT, BELGIUM, 1860-83.

Year.	Cost of production.			Market price.	Profit.	Amount going to—		Per cent. going to—		Average yearly wages of employes.
	Labor.	Other.	Total.			Labor.	Capital.	Labor.	Capital.	
1860.....	\$1 16	\$0 89	\$2 05	\$3 31	\$0 26	\$1 16	\$0 26	81.69	18.31	\$146
1861.....	1 11	1 06	2 17	2 39	22	1 11	22	83.46	16.54	144
1862.....	1 02	85	1 87	2 10	23	1 02	23	81.60	18.40	136
1863.....	1 02	83	1 85	2 01	16	1 02	16	86.44	13.56	137
1864.....	98	79	1 77	1 97	20	98	20	83.05	16.95	139
1865.....	1 03	79	1 82	2 06	24	1 03	24	81.10	18.90	152
1866.....	1 11	87	1 98	2 36	38	1 11	38	74.50	25.50	171
1867.....	1 26	89	2 15	3 49	34	1 26	34	78.75	21.25	175
1868.....	1 12	86	1 98	2 14	16	1 12	16	87.50	12.50	157
1869.....	1 11	85	1 96	2 08	12	1 11	12	90.24	9.76	162
1870.....	1 14	87	2 01	2 14	13	1 14	13	89.76	10.24	169
1871.....	1 14	90	2 04	2 22	18	1 14	18	86.36	13.64	164
1872.....	1 29	91	2 20	2 64	44	1 29	44	74.57	25.43	203
1873.....	1 85	1 20	3 14	4 22	1 08	1 85	1 08	62.71	37.29	271
1874.....	1 73	1 20	2 93	3 21	28	1 73	28	86.07	13.93	221
1875.....	1 67	1 20	2 87	3 05	18	1 67	18	90.27	9.73	227
1876.....	1 51	1 10	2 61	2 64	03	1 51	03	98.05	1.95	200
1877.....	1 17	98	2 15	2 17	02	1 17	02	93.32	6.68	161
1878.....	1 08	87	1 95	1 96	01	1 08	01	99.09	.91	161
1879.....	1 00	83	1 83	1 84	01	1 00	01	99.01	.99	155
1880.....	1 08	84	1 92	1 96	04	1 08	04	93.43	6.57	177
1881.....	1 07	82	1 89	1 89	.....	1 07	.....	100.00	.....	179
1882.....	1 08	79	1 87	1 95	08	1 08	08	93.10	6.90	185
1883.....	1 14	79	1 93	1 98	05	1 14	05	85.80	14.20	194

The following exhibit, drawn from official sources, is given as the average cost of production of a ton (2,205 pounds) of coal in Belgium. These figures represent the average cost for the whole country :

	Cost.	Per cent.
Labor	\$1 05	60.45
Plant	34	19.70
Fuel	10	5.88
Other expenses	24	13.97
Total	1 78	100.00

One of the most important elements in the cost of production, after the actual wages paid, lies in the efficiency of labor; but the difficulties in the way of ascertaining the efficiency of labor are greater than those in the way of ascertaining the general cost of production, and is a task involving such wide and such scientific work that it could not be taken up by the Bureau during its first year. The true element of wages, also, can only be ascertained by the most careful analysis of the efficiency of labor in all directions. The attempt will be made, when opportunity offers, to make such an analysis. It will be seen from the foregoing tables that there is no American standard of the cost of producing a given unit of production, nor, in fact, can any absolute standard be obtained for other countries. On the other hand, it is true that an approximate standard can be obtained, not only to a large extent from the data presented, but with ample information a standard could be reached by which the cost of production could be very carefully and very satisfactorily graded. Many corroborating statements have been examined to test the validity of the figures given in the great industries like iron and textiles, and while in some cases there has been found some deviation from statements made in trades journals and in the facts and figures published by associations, no deviation sufficient to invalidate the statements made in the foregoing tables has been observed.

The Variation in the Rates of Wages.—If the reader will refer to Appendix A, he will find a table covering 582 manufacturing establishments, showing the number of persons engaged in each specific occupation in each establishment, with their daily rates of wages. The wages in nearly all cases were taken direct from the pay-rolls. The table is referred to in this connection since it forms the basis of the summaries which follow, they having been directly derived from it. These summaries bring out the chief points of value contained in the long detailed table. The first shows the number of adult employés and the average rates of daily wages of leading occupations in the industries named in the various states and countries covered by the investigation. The second table shows the average rates of daily wages for children and youth in the same industries and in the same states and countries. The third table shows the number of employés

in each occupation of an industry for each state, and the percentage of employés in each occupation considered of the whole number of employés in each state and country, so far as the establishments investigated by the Bureau are concerned. The fourth summary brings out the number of employés in each industry, for each state and country involved, with the average rates of daily wages and the average running time, both daily and yearly, during the past year. In this summary the states where conditions are more nearly alike are placed together, forming geographical groups, each separated from the other by a white line. The fifth summary shows the total number of employés, average daily wages, and average daily and yearly working time for the industries involved for all the states covered. A casual examination of these summaries will show that any attempt to prove an American rate of wages must necessarily result in failure. There is no such thing as an American rate of wages.

SUMMARY OF SELECTED OCCUPATIONS, ADULTS.

AGRICULTURAL IMPLEMENTS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BLACKSMITHS.					LABORERS—concluded.				
Illinois	219		\$2 41		Kentucky	6		\$1 20	
Indiana	12		2 11		Maine	7		1 25	
Kentucky	4		2 50		New York	2		1 00	
Ohio	176		2 15		Ohio	845		1 80	
Pennsylvania	8		2 50		Pennsylvania	39		1 33	
Total and average.	419		2 29		Total and average.	1,185		1 35	
BLACKSMITHS' HELPERS.					MACHINISTS.				
Illinois	3		1 40		Illinois	426		2 39	
Indiana	13		1 30		Indiana	4		2 12	
Kentucky	6		1 20		New York	1		3 00	
Ohio	85		1 41		Ohio	566		2 07	
Pennsylvania	8		1 75		Total and average.	937		2 22	
Total and average.	115		1 41		MOULDERS.				
FOREMEN.					Illinois	171		3 13	
Illinois	23		3 20		Indiana	163		1 65	
Indiana	16		2 39		Kentucky	8		2 00	
Kentucky	3		3 00		Ohio	102		2 51	
Maine	3		2 42		Pennsylvania	22		1 80	
New York	2		2 62		Total and average.	465		2 39	
Ohio	29		3 60		PAINTERS.				
Pennsylvania	1		4 00		Illinois	136		2 09	
Total and average.	76		3 14		Indiana	10		1 72	
GRINDERS.					Maine	3		1 50	
Illinois	80		2 03		Ohio	270		1 80	
Indiana	96		1 48		Pennsylvania	1		2 50	
Kentucky	15		1 60		Total and average.	422		1 89	
Maine	12		1 75		WOOD WORKERS.				
New York	7		1 60		Illinois	80		1 59	
Ohio (grinders; grinders and polishers)	59		2 07		Indiana	14		1 34	
Total and average.	269		1 80		Kentucky	4		2 50	
LABORERS.					Ohio	377		1 63	
Illinois	744		1 39		Total and average.	475		1 66	
Indiana	42		1 15						

BOOTS AND SHOES.

SEADERS.					BOTTOMERS—concluded.				
New York	55		1 59		New York	213		1 95	
Total and average.	55		1 59		Ohio	225		2 43	
BLOCKERS.					Total and average.	656		2 20	
New York	17		2 26		BRUSHERS.				
Total and average.	17		2 26		New York	13		1 77	
BOTTOMERS.					Total and average.	13		1 77	
Kentucky	30		2 50		BUFFERS.				
Maryland	34		1 67		California	6		1 46	
Massachusetts	164		2 28		Massachusetts	3		2 00	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

BOOTS AND SHOES—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BUFFERS—concluded.					EDGE TRIMMERS.				
New York	27		\$1 40		California	9		\$1 83	
Pennsylvania	6		2 50		Maryland	2		2 25	
Total and average.	42		1 61		Massachusetts	30		2 45	
BURNISHERS.					New York	49		2 45	
California	13		1 98		Pennsylvania	8		3 49	
Illinois	6		3 00		Total and average.	98		2 48	
Maryland	7		1 50		FITTERS.				
Massachusetts	26		1 89		California	6		2 08	
New York	14		2 27		Illinois		60		\$1 50
Pennsylvania	12		2 15		Kentucky	3	30	2 50	1 00
Total and average.	78		2 06		Maryland	7	128	1 75	89
BUTTON-HOLE MAKERS.					Massachusetts	38	80	2 22	1 33
California	8		1 53		New Jersey	25	60	2 25	1 66
New York		70		\$1 04	New York	9		1 69	
Pennsylvania	3	9	1 60	78	Ohio	25	325	2 25	1 23
Total and average.	11	79	1 55	1 01	Pennsylvania	59		1 36	
BUTTON SEWERS.					Total and average.	170	683	1 88	1 23
California		1		1 37	FOREMEN.				
New York	4		1 50		California	6		5 00	
Pennsylvania		39		90	Maryland	8		3 12	
Total and average.	4	40	1 50	91	Massachusetts	13		3 04	
CHANNELLERS.					New York	70		2 43	
California	4		1 53		Ohio	3		3 00	
New York	26		1 68		Total and average.	100		2 74	
Total and average.	30		1 66		HREELERS.				
CLOSERS.					California	15		1 75	
New York	22	19	1 23	1 07	Illinois	10		2 17	
Pennsylvania	25		1 97		Maryland	2		1 50	
Total and average.	47	19	1 62	1 07	Massachusetts	45		2 03	
CUTTERS.					New York	30		2 51	
California	37		2 00		Pennsylvania	13		2 67	
Illinois	8		2 67		Total and average.	115		1 93	
Kentucky	4		2 33		LABORERS.				
Maryland	19		1 86		Massachusetts	17		1 31	
Massachusetts	376	24	1 96	89	New York	94		1 10	
New Jersey	25		2 50		Pennsylvania	38		1 33	
New York	338		2 28		Total and average.	189		1 19	
Ohio	40		2 56		LASTERS.				
Pennsylvania	28		2 18		California	77		1 58	
Total and average.	875	24	2 14	89	Illinois	8		2 25	
EDGE SETTERS.					Kentucky	6		2 00	
California	8		1 87		Maryland	20		1 59	
Maryland	3		1 55		Massachusetts	291		1 17	
Massachusetts	36		2 20		New York	219		2 34	
New York	19		2 60		Pennsylvania	110		1 92	
Pennsylvania	14		3 00		Total and average.	731		2 10	
Total and average.	80		2 38		LEVELLERS.				
					Maryland	2		1 43	
					Massachusetts	9		1 78	
					New York	19		2 56	
					Total and average.	30		2 25	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

BOOTS AND SHOES—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
MEASURERS.					SEWERS, M'KAY MACHINE.				
New York	17		\$1 86		Massachusetts	2		\$2 55	
Total and average	17		1 86		New York	11		2 67	
MOULDERS.					Total and average	13		2 66	
Massachusetts	1		2 25		SEWING-MACHINE OPERATORS.				
New York	16		2 44		California	24	32	1 87	\$1 50
Total and average	17		2 43		Massachusetts	78	362	1 78	1 49
PACKERS.					New York	9	968	1 77	1 28
California	7		1 93		Pennsylvania	29	71	1 78	1 32
Maryland	1		1 67		Total and average	140	1,443	1 71	1 34
Massachusetts	30		1 97		SKIVERS.				
New York	1		1 08		Massachusetts	4	7	1 87	1 14
Ohio	3		1 50		New York	29		1 65	
Pennsylvania	6		1 00		Total and average	33	7	1 68	1 14
Total and average	48		1 79		TACKERS.				
SAND PAPERERS.					Maryland	1		1 50	
Maryland	2		1 67		Massachusetts	6	9	1 73	1 04
Massachusetts	7		1 71		New York	33		1 95	
New York	13		1 39		Pennsylvania	4		1 10	
Total and average	22		1 52		Total and average	44	9	1 83	1 04
SEAM RUBBERS.					TURNERS.				
New York		15		\$1 00	Maryland	2		1 33	
Pennsylvania	6		1 15		Massachusetts	4		2 00	
Total and average	6	15	1 15	1 00	New York	25		1 51	
SEAT WHEELERS.					Pennsylvania	57		2 39	
New York	14		1 19		Total and average	88		2 10	
Total and average	14		1 19		VAMPERS.				
					California	6		2 36	
					Massachusetts	11	2	2 09	1 75
					New York	62		1 73	
					Pennsylvania	14		1 90	
					Total and average	93	2	1 84	1 75

BROOMS.

LABORERS.				WINDERS.			
New York	135		1 25	New York	98		1 70
Total and average	135		1 25	Total and average	98		1 70

CARPETINGS.

CARDERS.					COMBERS.				
Massachusetts	13	30	28	72	New York	20	83	2 05	97
New York	34		1 54		Pennsylvania		5		1 16
Total and average.	47	30	1 36	72	Total and average.	20	88	2 05	98

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

CARPETINGS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 235, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
DESIGNERS.					LABORERS—concluded.				
Great Britain.....	10		\$1 39		New York.....	136		\$1 34	
New York.....	37		2 26		Pennsylvania.....	400		1 25	
Total and average.	47		2 94		Total and average	607		1 22	
DRAWERS.					LOOM FIXERS.				
New York.....	5	194	2 03	\$1 03	Massachusetts.....	4		2 70	
Pennsylvania.....		30		90	New York.....	63		2 44	
Total and average.	5	224	2 03	1 01	Pennsylvania.....	21		2 35	
DRESSERS.					Total and average	88		2 40	
Massachusetts.....	6		1 75		MACHINISTS.				
New York.....	101		1 54		Massachusetts.....	4		2 75	
Total and average.	107		1 55		New York.....	83		2 19	
DYERS.					Pennsylvania.....	16		2 25	
Connecticut.....	10		1 75		Total and average.	103		2 22	
Great Britain.....	9		87		PRINTERS.				
Massachusetts.....	125		1 08		Great Britain.....	25	7	1 13	\$0 71
New York.....	63		1 48		Massachusetts.....	8		1 08	
Pennsylvania.....	18		1 50		New York.....	254		1 73	
Total and average.	225		1 28		Pennsylvania.....	30		1 50	
ENGINEERS.					Total and average.	317	7	1 65	71
Massachusetts.....	15		1 56		SCOURERS.				
New York.....	12		2 06		Massachusetts.....	28		1 11	
Pennsylvania.....	1		1 06		New York.....	173		1 37	
Total and average.	28		2 03		Total and average.	200		1 33	
FINISHERS.					SETTERS.				
Connecticut.....		10		1 25	Great Britain.....		21		75
Massachusetts.....	19	95	1 05	94	Massachusetts.....		14		1 40
New York.....	67		1 58		New York.....	91	356	1 99	1 40
Total and average.	86	105	1 45	97	Pennsylvania.....	120		1 80	
FOREMEN AND OVERSEERS.					Total and average.	311	391	1 88	1 36
Great Britain.....	6		1 97		SPINNERS, MULE.				
New York.....	170		2 62		Massachusetts.....	37		1 19	
Total and average.	176		2 60		New York.....	124		1 26	
HARNNESS FIXERS.					Total and average.	161		1 25	
New York.....	23		1 78		SPINNERS, OTHER.				
Total and average.	23		1 78		Massachusetts.....		162		64
INSPECTORS.					New York.....	299	302	1 14	1 07
New York.....	26	29	1 60	1 12	Pennsylvania.....		60		83
Total and average.	26	29	1 60	1 12	Total and average	299	464	1 14	94
LABORERS.					SPOOLERS.				
Great Britain.....	8		85		Massachusetts.....		12		93
Massachusetts.....	63		1 01		New York.....	62	244	1 25	80
					Pennsylvania.....	4	80	85	83
					Total and average.	66	336	1 33	86

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

CARPETINGS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
TWISTERS.					WEAVERS—concluded.				
New York.....	8	229	\$1 43	\$1 29	Pennsylvania.....	615		\$1 67	
Pennsylvania.....		80		90					
Total and average.	8	250	1 43	1 25	Total and average.	1,221	1,321	1 58	\$1 42
WARPERS.					WINDERS.				
Massachusetts.....	15		1 28		Great Britain.....	29			48
New York.....	28		1 55		Massachusetts.....	40	84	1 29	85
Pennsylvania.....	2		1 35		New York.....	36	818	1 43	1 11
					Pennsylvania.....	28			75
Total and average.	45		1 45		Total and average.	76	454	1 36	1 00
WEAVERS.					WOOL SORTERS.				
Connecticut.....		48		1 56	Massachusetts.....	28	3	1 78	1 68
Great Britain.....	116		1 36		New York.....	123		1 25	
Massachusetts.....	64	359	1 53	1 51					
New York.....	426	914	1 53	1 38	Total and average.	151	3	1 35	1 68

CARRIAGES AND WAGONS.

BLACKSMITHS.					PAINTERS.				
Connecticut.....	55		2 76		Connecticut.....	96		2 11	
Illinois.....	53		2 37		Illinois.....	32		1 87	
New Jersey.....	16		1 92		New Jersey.....	18		1 75	
Ohio.....	70		2 16		Ohio.....	97		1 39	
Pennsylvania.....	4		2 08		Pennsylvania.....	3		2 33	
Total and average.	197		2 36		Total and average.	306		1 79	
BLACKSMITHS' HELPERS.					TRIMMERS.				
Connecticut.....	58		1 75		Connecticut.....	73		2 43	
Illinois.....	37		1 41		Illinois.....	53		2 10	
Ohio.....	14		1 35		New Jersey.....	6		2 25	
Pennsylvania.....	6		95		Ohio.....	8		2 50	
Total and average.	115		1 55		Pennsylvania.....	1		2 00	
FOREMEN.					WOOD WORKERS.				
Connecticut.....	3		3 81		Connecticut (body makers).....	80		2 43	
Illinois.....	11		3 68		Illinois.....	73		2 13	
Ohio.....	30		2 92		New Jersey (body makers).....	10		2 50	
Total and average.	44		3 17		Ohio (wood workers, body makers).....	58		2 01	
LABORERS.					Pennsylvania.....	4		1 91	
Connecticut.....	12		1 29		Total and average.	235		2 22	
Illinois.....	12		1 48						
Ohio.....	23		1 36						
Total and average.	47		1 37						

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

CLOTHING.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 286, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BUTTON-HOLE MAKERS.					LABORERS.				
New York		18		\$1 75	New Jersey	7		\$1 50	
Pennsylvania		15		1 17	New York	7		96	
Total and average		33		1 49	Pennsylvania	24		1 31	
					Virginia	3		1 25	
					Total and average	41		1 28	
BUTTON SEWERS.					LAPPERS.				
New York		9		75	New York	28		1 00	
Total and average		9		75	Total and average	28		1 00	
					LOOPERS.				
CUTTERS.					New York	2	100	1 00	\$0 81
New York	20	2	\$1 97	1 00	Total and average	2	100	1 00	0 81
Pennsylvania	15	17	1 03	86					
Total and average	35	19	1 57	87	MENDERS.				
					New York		86		88
ENGINEERS.					Total and average		86		88
New Jersey	2		3 25						
New York	8		1 48		SEWING-MACHINE OPERATORS.				
Pennsylvania	3		2 18		New York		180		92
Virginia	1		2 00		Total and average		180		92
Total and average	14		1 92						
FINISHERS.					SPINNERS, MULE.				
New Jersey	116		2 02		New York	31		1 26	
New York	39	231	1 12	95	Virginia	7		1 50	
Pennsylvania	136		1 70		Total and average	38		1 31	
Virginia	4	27	2 50	75					
Total and average	295	258	1 76	93	SPOOLERS.				
					New York	2	6	1 13	87
FOREMEN.					Total and average	2	6	1 12	87
New Jersey	4	1	3 21	1 67					
New York (foremen, overseers)	45	4	2 40	1 88	TRIMMERS.				
Total and average	49	5	2 47	1 84	New Jersey		60		1 00
					New York		25		1 12
HEMMERS.					Pennsylvania		120		85
New York		38		82	Total and average		205		93
Total and average		38		82					
INSPECTORS.					WASH-ROOM HANDS.				
New York		16		67	New York	49		1 42	
Total and average		16		67	Pennsylvania	9		1 00	
					Total and average	58		1 35	
KNITTERS.					WINDERS.				
New York	1	77	1 75	1 07	New York		75		78
Virginia	2		1 75		Pennsylvania		6		75
Total and average	3	77	1 75	1 07	Total and average		81		78

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

COAL, COKE, AND ORE.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BLACKSMITHS.					ENGINEERS—concluded.				
Great Britain	3		\$1 08		West Virginia (engineers; engineers, stationary, locomotive) ..	8		\$1 78	
Indiana	16		1 69		Total and average	78		1 93	
Maryland	6		1 93		FIREMEN.				
Missouri	1		2 31		Great Britain	20			
Ohio	13		2 08		Maryland	1		1 70	
Pennsylvania	19		2 41		Missouri	1		2 31	
Virginia	4		1 95		Ohio	8		1 44	
West Virginia	12		2 02		Virginia	3		1 04	
Total and average	74		2 01		Total and average	33		1 15	
BLACKSMITHS' HELPERS.					LABORERS.				
Great Britain	2		72		Great Britain	23		72	
Maryland	5		1 48		Indiana	91		1 00	
Missouri	1		1 93		Maryland	16		1 24	
Ohio	2		1 45		Missouri	18		1 50	
Virginia	3		1 25		Ohio	49		1 43	
West Virginia	1		1 25		Pennsylvania	428		1 21	
Total and average	14		1 33		Virginia	235		1 04	
CARPENTERS.					West Virginia	49		1 16	
Maryland	5		1 74		Total and average	909		1 15	
Missouri	4		2 00		MINE BOSSSES.				
Ohio	5		2 20		Indiana	6		3 50	
Pennsylvania	18		2 50		Missouri	1		2 88	
Virginia	7		1 63		Ohio	13		2 36	
West Virginia	12		1 85		Pennsylvania	20		2 25	
Total and average	46		2 04		Virginia	14		1 69	
DRIVERS.					West Virginia	8		2 71	
Great Britain	11		62		Total and average	62		2 44	
Indiana	85		1 40		MINERS.				
Maryland	83		1 60		Great Britain	285		1 10	
Missouri	7		2 00		Indiana	1375		1 49	
Ohio	100		1 57		Maryland	762		1 62	
Pennsylvania	106		1 66		Missouri	239		1 58	
Virginia	7		75		Ohio	1055		1 75	
West Virginia	96		1 49		Pennsylvania	1355		1 90	
Total and average	495		1 52		Virginia	113		1 23	
DUMPERS.					West Virginia	662		1 69	
Great Britain	4		96		Total and average	6346		1 67	
Maryland	20		1 35		STABLEMEN.				
Ohio	17		1 49		Great Britain	1		80	
Pennsylvania	12		2 50		Maryland	7		1 39	
West Virginia	6		1 36		Ohio	4		1 42	
Total and average	59		1 60		Virginia	2		1 88	
ENGINEERS.					West Virginia	4		1 44	
Great Britain (stationary) ..	1		1 12		Total and average	18		1 38	
Indiana	26		2 12						
Maryland	2		2 20						
Missouri	7		1 91						
Ohio (engineers; engineers, stationary, locomotive) ..	15		1 81						
Pennsylvania (engineers; engineers, stationary, locomotive) ..	5		1 91						
Virginia	14		1 84						

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

COAL, COKE, AND ORE—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employes.		Average rates of daily wages.		Occupations and states.	Number of adult employes.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
TRACKLAYERS.					WEIGHERS.				
Great Britain	25		\$0 90		Great Britain	5		\$0 84	
Indiana	25		2 06		Indiana	15		1 78	
Maryland	10		1 88		Maryland	5		1 77	
Missouri	5		2 35		Missouri	1		2 81	
Ohio	21		1 78		Ohio	9		1 63	
Virginia	6		1 25		Pennsylvania	2		2 50	
West Virginia	26		1 72		West Virginia	7		1 87	
Total and average.	118		1 63		Total and average.	45		1 74	

COOKING AND HEATING APPARATUS.

BLACKSMITHS.					JAPANNERS.				
Illinois	2		1 62		Michigan	2		2 00	
Michigan	4		2 16		New York	9		1 84	
New York	14		1 91		Total and average.	11		1 87	
Ohio	1		1 75		LABORERS.				
Pennsylvania	1		1 75		Illinois	41		1 43	
Total and average.	22		1 92		Kentucky	18		1 77	
CARPENTERS.					Michigan	19		1 64	
Illinois	2		2 25		New York	383		1 33	
New York	88		2 23		Ohio	15		1 70	
Ohio	4		2 12		Pennsylvania	10		1 85	
West Virginia	1		2 00		West Virginia	12		1 25	
Total and average.	45		2 21		Total and average.	494		1 87	
CUPOLA MEN.					MACHINISTS.				
Illinois	16		2 09		Illinois	10		2 00	
New York	13		1 81		Michigan	5		2 38	
Ohio	3		1 72		New York	5		2 29	
West Virginia	1		2 25		Ohio	7		1 80	
Total and average.	33		1 95		Total and average.	27		2 07	
ENGINEERS.					MOULDERS.				
Illinois	6		2 08		Illinois	267		3 65	
Michigan	2		2 50		Kentucky	37		2 35	
New York	5		2 20		Michigan	430		2 27	
Ohio	4		2 19		New York	945		3 26	
Pennsylvania	1		2 25		Ohio	359		2 60	
West Virginia	1		1 75		Pennsylvania	48		3 56	
Total and average.	19		2 17		West Virginia	23		2 56	
FOREMEN.					Total and average.	2109		2 88	
Illinois	4		3 81		MOUNTERS.				
Michigan	27		3 83		Illinois	54		1 86	
New York	29		3 25		Kentucky	6		2 35	
Ohio	9		3 49		Michigan	151		1 89	
Pennsylvania	2		3 00		New York	56		3 23	
Total and average.	71		3 50		Ohio	142		2 19	
GRINDERS.					Pennsylvania	13		3 06	
Illinois	4		1 50		West Virginia	9		1 65	
Michigan	51		1 26		Total and average.	430		2 20	
New York	35		1 62						
Total and average.	90		1 37						

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

COOKING AND HEATING APPARATUS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 286, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
NICKEL PLATERS.					POLISHERS—concluded.				
Illinois.....	1		\$2 25		New York.....	43		\$3 58	
Michigan.....	5		1 45		Ohio.....	12		1 43	
New York.....	18		2 79		Total and average.				
Ohio.....	30		1 53			155		2 06	
Total and average.									
	54		1 96		TRAMSTERS.				
PATTERN MAKERS.					Michigan.....	16		1 52	
Illinois.....	12		3 21		New York.....	19		1 63	
Michigan.....	49		2 27		Ohio.....	1		1 50	
New York.....	12		2 28		Pennsylvania.....	1		1 50	
Ohio.....	19		2 83		Total and average.				
Pennsylvania.....	2		3 00			37		1 58	
West Virginia.....	1		2 25		TINSMITHS.				
Total and average.					Michigan.....	12		1 94	
	96		2 52		New York.....	58		1 98	
POLISHERS.					Ohio.....	3		2 11	
Illinois.....	1		1 50		Total and average.				
Michigan.....	98		1 92			73		1 98	

COTTON GOODS.

BEAMERS.					CARD GRINDERS.				
Delaware.....	11		1 47		Connecticut.....	2		1 25	
Great Britain.....	4		90		France.....	1		88	
Maine.....	22	5	2 01	\$1 48	Georgia.....	6		1 05	
Maryland.....	14		79		Germany.....	8		82	
Massachusetts.....		8		1 00	Great Britain.....	9		91	
New York.....	2		1 25		Italy.....	9		63	
North Carolina.....	10		1 18		Maine.....	28		1 85	
Pennsylvania.....	12		2 00		Maryland.....	10		1 53	
Virginia.....	3		83		Massachusetts.....	58		1 24	
Total and average.					New Hampshire.....	13		1 87	
	78	13	1 50	1 18	New York.....	31		1 16	
BLACKSMITHS.					North Carolina.....	10		1 01	
Georgia.....	2		1 60		Pennsylvania.....	2		1 54	
Maine.....	4		1 88		Vermont.....	2		1 50	
Maryland.....	1		1 50		Virginia.....	7		1 07	
Massachusetts.....	4		2 88		Total and average.				
New York.....	2		1 75			1 96		1 19	
Total and average.					CARD STRIPPERS.				
	18		1 98		Connecticut.....	4		90	
CARDERS.					Delaware.....	1		1 33	
Delaware.....	33		85		Georgia.....	2		85	
France.....	2		53		Maine.....	20		85	
Germany.....	23		57		Massachusetts.....	58	6	82	\$0 85
Great Britain.....	24		86		New Hampshire.....	11		96	
Italy.....	32		83		New York.....	28		1 02	
Maryland.....	36	32	71	70	Vermont.....	2		1 00	
Massachusetts.....	87	86	1 26	75	Total and average.				
New Hampshire.....	47	193	96	90		126	6	94	85
New York.....	6	249	1 20	87	CLOTH-ROOM HANDS.				
North Carolina.....	18		77		Georgia.....	1		85	
South Carolina.....	42		85		Great Britain.....	1		1 30	
Virginia.....	7		77		Maine.....	4		98	82
Total and average.					Massachusetts.....	16	11	1 84	78
	357	660	89	85	New Hampshire.....	35	39	1 73	1 08

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
CLOTH-ROOM HANDS—concluded.					FILLING HANDS.				
South Carolina	7		\$1 00		Connecticut	1		\$1 00	
Total and average	64	54	1 48	\$1 00	Maine	3		1 14	
DOFFERS.					Massachusetts	20		1 07	
Connecticut		4		60	New Hampshire	1		42	
Total and average		4		60	Virginia	1		94	
DRAWERS.					Total and average	26		1 04	
Connecticut				1 02	FIREMEN.				
France	6	3	66	41	France	2		74	
Georgia		5		68	Georgia	2		75	
Great Britain		36		72	Germany	27		72	
Italy		27		29	Great Britain	3		98	
Maine	4	51	92	88	Italy	9		54	
Maryland		13		73	Maine	4		1 38	
Massachusetts		105		91	Maryland	1		1 25	
New Hampshire	3	10	80	77	Massachusetts	18		1 31	
New Jersey		8		70	New Jersey	1		1 35	
New York		17		68	New York	10		1 40	
North Carolina		9		56	North Carolina	4		94	
Virginia		8		55	Vermont	1		1 50	
Total and average	13	301	77	77	Virginia	8		1 07	
DRAWERS-IN.					Total and average	85		1 00	
Great Britain	13		81		FOLDERS.				
Maine		6		1 10	Connecticut	1		1 33	
Massachusetts		55		77	Georgia	8		72	
New York		11		98	Germany	24		42	
North Carolina	6		72		Maine	3		1 42	
Vermont		6		90	Massachusetts	4		86	
Virginia		2		92	New York	6		1 29	
Total and average	19	90	78	83	North Carolina	1		1 00	
DYERS.					Vermont	1		1 10	
Delaware	6		1 50		Virginia	1		1 00	
Germany	182		58		Total and average	44		73	
Maine	37		1 19		INSPECTORS.				
Massachusetts	43		1 10		Connecticut		1	\$1 12	
North Carolina	17		75		Maine		54	74	
Pennsylvania	10		1 67		Massachusetts	2	11	1 00	80
Virginia	7		1 00		New Hampshire	1		83	
Total and average	302		77		New York	2	1	1 56	1 12
ENGINEERS.					Vermont	1		1 50	
Connecticut	1		2 50		Total and average	6	67	1 24	76
France	2		1 08		LABORERS.				
Georgia	1		1 50		Connecticut	2		1 00	
Great Britain	6		1 53		Delaware	5		1 27	
Italy	5		66		France	2		58	
Maryland	3		1 67		Georgia	3		85	
Massachusetts	11		2 04		Germany	17		77	
New Jersey	1		2 00		Great Britain	15		88	
New York	6		2 38		Italy	52		45	
North Carolina	5		1 40		Maine	121		1 04	
Pennsylvania	2		2 43		Maryland	25		1 06	
Vermont	1		4 33		Massachusetts	127		1 06	
Virginia	1		1 13		New Hampshire	31		1 28	
Total and average	45		1 76		New York	111		1 06	
					North Carolina	2		75	
					South Carolina	15		85	
					Virginia	5		96	
					Total and average	538		0 90	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
LAPPEERS.					PACKERS.				
Connecticut.....	3		\$0 90		Germany.....	8		\$0 58	
Great Britain.....	9	12	88	\$0 60	Great Britain.....	6		68	
Massachusetts.....	2		118		Maine.....	1		1 00	
New Hampshire.....	4		88		Maryland.....	20		1 45	
North Carolina.....	3		80		New York.....	3		1 15	
					North Carolina.....	9		89	
Total and average.....	21	12	0 90	60	Pennsylvania.....	2		2 18	
					Virginia.....	8	2	1 10	\$0 55
LOOM FIXERS.					Total and average.....	57	2	1 11	55
Delaware.....	2		1 40		PAINTERS.				
Italy.....	1		48		Georgia.....	1		1 00	
Maryland.....	14		1 54		Maine.....	7		1 73	
Massachusetts.....	13		1 41		Massachusetts.....	19		1 44	
New Jersey.....	6		1 50		New York.....	13		1 83	
New York.....	26		1 78						
North Carolina.....	16		1 22		Total and average.....	40		1 61	
Vermont.....	5		1 50		PICKERS.				
Virginia.....	5		1 82		Germany.....	13		56	
Total and average.....	88		1 50		Maine.....	27		90	
MACHINISTS.					Maryland.....	17		1 21	
Connecticut.....	2		1 50		Massachusetts.....	18		1 01	
Georgia.....	3		1 47		New Hampshire.....	12		92	
Great Britain.....	1		1 35		New Jersey.....	3		1 25	
Maine.....	22		1 83		New York.....	20		1 08	
Maryland.....	1		2 13		North Carolina.....	11		89	
Massachusetts.....	43		1 47		Pennsylvania.....	2		94	
New Jersey.....	3		2 35		Vermont.....	4		1 00	
New York.....	28		1 94		Virginia.....	8		94	
North Carolina.....	1		2 00						
Virginia.....	5		2 10		Total and average.....	135		96	
Total and average.....	109		1 73		RAILWAY HANDS.				
OILERS.					Connecticut.....		1		63
Connecticut.....	1		96		Georgia.....	1		80	
France.....	2		71		Virginia.....	1	1	79	55
Georgia.....	5		80						
Germany.....	2		78		Total and average.....	2	3	80	59
Great Britain.....	4		97		REELERS.				
Italy.....	13		45		Italy.....		200		24
Maine.....	32		99		Maine.....	5		2 21	
Massachusetts.....	70		93		Massachusetts.....		2		75
New Hampshire.....	8		94		North Carolina.....		29		57
New York.....	5		115		Pennsylvania.....		12		90
North Carolina.....	3		75		Virginia.....		2		75
Vermont.....	1		90						
Total and average.....	146		90		Total and average.....	5	245	2 21	32
OVERSEERS.					ROVERS.				
Connecticut.....	5		2 57		Germany.....	4		61	
France.....	5		99		Great Britain.....	25	102	80	61
Georgia.....	7		3 43		Maine.....		11		1 20
Great Britain.....	14		1 69		New Hampshire.....	14	2	55	96
Italy.....	6	10	72	25	New York.....	2		1 25	
Maine.....	19		3 60		North Carolina.....	1		75	
Maryland.....	20		2 18						
Massachusetts.....	68		2 85		Total and average.....	46	115	82	67
New Hampshire.....	86		4 15		SCRUBBERS.				
New York.....	51		2 56		Germany.....		3		48
North Carolina.....	23		3 00		Maine.....		3	70	85
Pennsylvania.....	15		2 25		Massachusetts.....		40		61
Vermont.....	5		2 75		New Hampshire.....		20		56
Virginia.....	22		1 87						
Total and average.....	296	10	2 68	25	Total and average.....	3	67	70	61

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 235, whence derived.

Occupations and states.	Number of adult employes.		Average rates of daily wages.		Occupations and states.	Number of adult employes.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
SECOND HANDS.					SPEEDERS—concluded.				
Connecticut	4		\$1 45		Great Britain	29		\$0 85	
Georgia	6		1 49		Maine	9		82	
Maine	39	57	1 79	\$0 95	Maryland	34		85	
Maryland	3		1 75		Massachusetts	2	166	\$0 85	82
Massachusetts	94		1 77		New Hampshire	8		1 00	
New Hampshire	51		2 02		New Jersey	20		90	
New York	82		1 67		New York	52		82	
North Carolina	3		78		North Carolina	41		60	
Vermont	4		1 50		Pennsylvania	9		1 12	
Virginia	5		1 25		Vermont	14		82	
					Virginia	13		60	
Total and average	291	57	1 76	95	Total and average	24	408	89	79
SECTION HANDS.					SPINNERS, MULE.				
Connecticut	5		1 42		Connecticut	15		1 62	
Georgia	17		1 08		Delaware	1		2 50	
Maine	100		1 54		France	7		95	
Massachusetts	136	4	1 45	1 16	Georgia	8		85	
New Hampshire	13		1 48		Germany	26		88	
Total and average	271	4	1 46	1 16	Great Britain	172		1 87	
SLASHERS.					Italy	32		73	
Connecticut	1		1 07		Maine	59		1 49	
Georgia	3		1 22		Massachusetts	2 74		1 35	
Maine	13		1 45		New Hampshire	32		1 43	
Massachusetts	32		1 42		New Jersey	14		1 40	
New Hampshire	7		1 60		New York	1 57		1 32	
New York	49		1 10		Vermont	12		1 20	
North Carolina	3		97		Total and average	809		1 33	
Vermont	2		1 20		SPINNERS, OTHER.				
Virginia	1		1 70		Germany		15		49
Total and average	111		1 28		Great Britain		6		58
SLUBBERS.					Maine		86		76
Connecticut	3		1 13		Maryland		162		71
Great Britain		32		68	Massachusetts		389		79
Maine		19		95	New Hampshire		327		75
Maryland		18		78	New York	403	244	88	61
Massachusetts		32		90	Pennsylvania		28		88
New Hampshire		2		87	South Carolina		80		65
New York		78		90	Total and average	403	1,337	88	72
North Carolina		19		60	SPOOLERS.				
Pennsylvania		2		1 12	Connecticut		18		60
Vermont		6		88	Delaware		3		66
Virginia		7		61	Maine		132		71
Total and average	83	147	1 01	78	Maryland		56		75
SPARK HANDS.					Massachusetts		329	98	71
Maine	3	2	1 10	1 16	New Hampshire		116		60
Massachusetts	8	13	90	1 00	New York	8	8	60	70
New Hampshire	7	1	1 02	96	North Carolina		50		55
New York	3		1 08		Pennsylvania		15		80
North Carolina		4		55	Virginia		17		63
Vermont		6		82	Total and average	11	744	77	69
Virginia	1	3	90	55	SWEPPERS.				
Total and average	22	28	99	88	Italy		7		20
SPREADERS.					Massachusetts		13		60
Connecticut		18		1 01	Total and average		20		46
Germany		17		89					

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

COTTON GOODS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult em- ployés.		Average rates of daily wages.		Occupations and states.	Number of adult em- ployés.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
TRAMSTERS.					WATCHMEN.				
Georgia	1		\$1 05		Connecticut	2		\$1 15	
Maine	8		1 24		France	1		1 00	
Massachusetts	10		1 19		Georgia	6		83	
New York	20		1 85		Germany	16		48	
North Carolina	3		93		Italy	2		48	
Vermont	2		1 25		Maine	15		1 23	
Virginia	2		85		Maryland	3		1 25	
Total and average.	46		1 45		Massachusetts	31		1 39	
TWISTERS.					New York	21		1 21	
Great Britain	8		75		North Carolina	6		94	
Italy	8	79	67	\$0 25	Pennsylvania	4		1 67	
Maine	3	2	1 42	1 56	South Carolina	5		1 10	
Maryland		28		85	Virginia	4		1 14	
Massachusetts	2	50	1 52	89	Total and average.	116		1 14	
New York	12		1 15		WEAVERS.				
Total and average.	31	150	1 01	57	Connecticut	43	97	1 17	\$0 95
WARPERS.					Delaware		153		82
Connecticut		3		86	France		100		54
France	5		67		Georgia	71	162	86	77
Georgia	3	2	1 00	85	Germany		1,087		46
Germany		18		49	Great Britain		152		80
Maine	14	16	1 07	91	Maine	731	568	1 11	1 10
Maryland	15	44	1 30		Maryland	14	379	84	85
Massachusetts	15		1 02	96	Massachusetts	291	2,006	1 13	93
New Hampshire		13		1 10	New Hampshire	241	1,500	1 07	99
New York		14		78	New Jersey		130		84
North Carolina	11		1 05		New York	235	1,169	1 10	93
Pennsylvania	6		1 85		North Carolina	100	208	75	76
Virginia		5		84	Pennsylvania	40	134	1 12	1 12
Total and average.	68	115	1 13	86	South Carolina	91		92	
FOOD PREPARATIONS.					Vermont	65	50	1 00	82
CLEANERS.					Virginia	25	201	1 10	79
Illinois	6		1 86		Total and average.	2,047	7,972	1 07	87
Indiana	2		1 80		FIREMEN.				
Missouri	2		1 65		California	8		2 50	
New Hampshire	1		85		Illinois	10		1 80	
Total and average.	11		1 72		Missouri	6		2 28	
COOPERS.					Ohio	14		1 52	
Ohio	44		1 22		Total and average.	33		1 86	
Total and average.	44		1 22		LABORERS.				
ENGINEERS.					California	9		1 50	
California	18		4 80		Illinois	66		1 53	
Illinois	19		2 48		Indiana	424		1 50	
Indiana	8		2 40		Minnesota	108		1 80	
Missouri	7		2 90		Missouri	77		1 49	
Ohio	11		1 72		Ohio	15		1 56	
West Virginia	1		2 00		West Virginia	1		1 42	
Total and average.	50		3 09		Total and average.	700		1 55	
MILLERS.					MILLERS.				
California					California	5		4 80	
Illinois					Illinois	31		8 01	
Indiana					Indiana	8		3 80	
Minnesota					Minnesota	83		2 50	
Missouri					Missouri	12		3 50	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

FOOD PREPARATIONS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
MILLERS—concluded.					SWEEPERS.				
New Hampshire.....	5		\$3 00		Illinois.....	14		\$1 54	
Ohio.....	12		2 52		Indiana.....	2		1 89	
West Virginia.....	2		2 70		Minnesota.....	50		1 62	
Total and average.	153		2 80		Missouri.....	2		1 65	
PACKERS.					New Hampshire.....	1		1 25	
California.....	2		3 50		Ohio.....	2		1 67	
Illinois.....	24		1 78		Total and average.	71		1 61	
Indiana.....	2		1 80		TEAMSTERS.				
Minnesota.....	28		2 09		California.....	6		2 91	
Missouri.....	4		1 82		Illinois.....	17		1 63	
New Hampshire.....	2		1 65		Indiana.....	2		2 00	
Ohio.....	8		1 84		Ohio.....	4		1 25	
West Virginia.....	1		1 67		Total and average.	29		1 87	
Total and average.	71		1 91						

FURNITURE.

CABINET MAKERS.					LABORERS.				
Indiana.....	143		1 59		Indiana.....	48		1 08	
Kentucky.....	27		1 80		Kentucky.....	8		1 13	
Michigan.....	118		1 88		Michigan.....	63		1 27	
Total and average.	288		1 73		Total and average.	119		1 18	
CARVERS.					MACHINE MEN.				
Kentucky.....	6		2 25		Indiana.....	187		1 55	
Michigan.....	31		2 33		Kentucky.....	32		1 50	
Total and average.	37		2 31		Michigan.....	166		1 73	
ENGINEERS.					Total and average.	385		1 63	
Indiana.....	2		2 91		UPHOLSTERERS.				
Michigan.....	5		2 55		Indiana.....	5		2 00	
Total and average.	7		2 65		Kentucky.....	5		1 50	
FOREMEN.					Michigan.....	19		1 83	
Indiana.....	4		3 00		Total and average.	29		1 79	
Michigan.....	18		2 99						
Total and average.	22		2 99						

GLASS.

BLACKSMITHS.					BLOWERS AND FINISHERS, BOTTLE AND CHIMNEY.				
California.....	3		\$3 00		California (blowers).....	28		4 33	
Kentucky.....	1		2 25		Kentucky (blowers).....	20		4 00	
New Jersey.....	7		2 66		New Jersey (blowers).....	207		4 50	
Ohio.....	3		2 41		Ohio.....	23		4 28	
Pennsylvania.....	11		2 33		Pennsylvania.....	403		4 42	
West Virginia.....	1		2 25		West Virginia (blowers).....	18		4 90	
Total and average.	26		2 50		Total and average.	699		4 44	
BLOWERS, WINDOW GLASS.					CUTTERS.				
Illinois.....	36		6 25		Illinois.....	6		5 55	
New Jersey.....	32		4 80		New Jersey.....	20		4 13	
Ohio.....	37		5 08		Ohio.....	15		4 04	
Pennsylvania.....	27		5 48		Pennsylvania.....	11		4 16	
Total and average.	112		5 26		Total and average.	52		4 45	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

GLASS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
ENGINEERS.					MIXERS.				
California	1		\$2 50		California	3		\$2 50	
New Jersey	8		1 50		Kentucky	1		3 00	
Ohio	1		1 05		New Jersey	11		1 87	
Pennsylvania	7		2 31		Ohio	5		1 76	
Total and average.	17		1 90		Pennsylvania	28		1 66	
					West Virginia	2		1 66	
FILLERS-IN.					Total and average.	50		1 97	
Ohio	2		2 00		MOULD MAKERS.				
Pennsylvania	13		1 90		Ohio	7		4 00	
Total and average.	15		1 92		Pennsylvania	23		3 58	
FLATTENERS.					Total and average.	30		3 68	
Illinois	4		6 25		PACKERS.				
New Jersey	10		4 64		California	8		2 25	
Ohio	9		5 35		Kentucky	1		2 25	
Pennsylvania	8		4 47		New Jersey	13		2 80	
Total and average.	31		5 01		Ohio	10		1 55	
FOREMEN.					Pennsylvania	74		1 92	
Kentucky	1		3 00		West Virginia	5		1 50	
New Jersey	1		4 87		Total and average.	111		2 00	
Pennsylvania	9		4 00		POT MAKERS.				
West Virginia	1		4 00		California	2		3 00	
Total and average.	12		3 99		New Jersey	3		2 80	
GATHERERS.					Pennsylvania	8		3 09	
Illinois	16		4 00		Total and average.	13		3 03	
New Jersey	40		2 99		PRESSERS.				
Ohio	71		2 90		Ohio	29		4 00	
Pennsylvania	173		2 47		Pennsylvania	41		4 41	
Total and average.	300		2 73		Total and average.	70		4 24	
LABORERS.					TEAMSTERS.				
California	15		1 75		California	3		3 00	
Kentucky	21		1 04		Kentucky	1		1 25	
New Jersey	36		1 20		New Jersey	18		1 42	
Ohio	46		1 92		Pennsylvania	13		1 82	
Pennsylvania	435		1 60		West Virginia	2		1 66	
Total and average.	553		1 59		Total and average.	37		1 70	
LEESMEN.					TEASERS.				
New Jersey	19		2 48		California	3		3 00	
Ohio	4		1 75		Kentucky	2		1 40	
Pennsylvania	17		1 60		Ohio	9		1 94	
West Virginia	2		1 66		Pennsylvania	39		1 96	
Total and average.	42		2 01		West Virginia	2		1 75	
MASTER SHREAMERS.					Total and average.	55		1 99	
New Jersey	29		2 09		WATCHMEN.				
Total and average.	29		2 09		Kentucky	1		1 15	
MASTER TEASERS.					Ohio	1		1 50	
Ohio	2		4 50		Pennsylvania	12		1 69	
Pennsylvania	3		4 43		West Virginia	1		1 66	
Total and average.	5		4 46		Total and average.	15		1 64	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

LEATHER.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 235, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BRAMSMEN.					LABORERS—concluded.				
California	30		\$3 16		Delaware	37		\$1 50	
Delaware	38		1 83		Pennsylvania	24		1 20	
Massachusetts	10		1 60		Total and average.	98		1 55	
Pennsylvania	45		2 07						
Total and average.	123		1 98		SHAVERS.				
FINISHERS.					Delaware	16		3 16	
California	1		2 66		Pennsylvania	17		2 40	
Delaware	184		1 72		Total and average.	33		2 28	
Massachusetts	40		2 06						
Pennsylvania	108		2 27		TANNERS.				
Total and average.	333		1 94		Delaware	30		1 67	
LABORERS.					Massachusetts	10		1 53	
California	37		1 83		Pennsylvania	27		1 86	
					Total and average.	67		1 73	

LIQUORS AND BEVERAGES.

BREWERS AND MALSTERS.					FOREMEN.				
Illinois	64		\$2 12		Illinois	7		\$4 05	
Ohio	72		2 09		Ohio	1		2 09	
Pennsylvania	12		2 25		Pennsylvania	1		3 00	
Total and average.	148		2 12		Total and average.	9		3 70	
ENGINEERS.					TEAMSTERS.				
Illinois	9		2 89		Illinois	20		2 01	
Ohio	4		2 75		Ohio	45		2 18	
Total and average.	13		2 85		Pennsylvania	4		2 00	
FIREMEN.					Total and average.	69		2 12	
Illinois	23		1 95						
Ohio	4		2 08						
Total and average.	26		1 97						

MACHINES AND MACHINERY.

BLACKSMITHS.					MACHINISTS.				
California	16		\$3 32		California	68		\$3 97	
Indiana	29		2 44		Indiana	373		2 44	
Kentucky	6		2 66		Kentucky	43		2 10	
Maine	2		2 25		Maine	10		2 60	
New Jersey	3		3 06		Massachusetts	170		2 27	
Total and average.	56		2 75		New Jersey	65		2 35	
BOILER MAKERS.					Pennsylvania	275		1 96	
California	32		3 30		Total and average.	1,004		2 27	
Indiana	114		2 01						
Total and average.	146		2 30		MOULDERS.				
CARPENTERS.					California	48		3 39	
California	7		2 96		Indiana	43		2 30	
Indiana	7		2 28		Kentucky	10		2 37	
Total and average.	14		2 63		Maine	18		2 38	
					New Jersey	30		2 64	
					Total and average.	149		2 74	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

METALS AND METALLIC GOODS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BREAKERS.					CINDERMEN.				
Maryland (limestone, ore)	7		\$1 25		Alabama	10		\$1 40	
New York (ore)	6		1 33		Maryland	4		1 25	
Ohio (iron, limestone, ore)	39		1 28		New York	13		1 28	
Pennsylvania (iron, ore)	18		1 43		Ohio	50		1 45	
Tennessee (ore)	4		90		Pennsylvania	90		2 03	
Virginia (ore)	4		1 00		Virginia	14		1 07	
Total and average.	78		1 28		Total and average.	120		1 52	
BRICKLAYERS.					DRAG-OUTS.				
Belgium (masons)	2		59		Delaware	2		1 35	
Great Britain (bricklayers, masons)	10		1 20		Great Britain	3		1 20	
Illinois (bricklayers, masons)	2		3 90		New York	8		1 62	
Indiana (masons)	3		1 75		Ohio (drag-outs; drag-outs, butt, muck, plate)	23		1 85	
Kentucky	1		3 50		Pennsylvania (drag-outs; drag-outs, bar, 10-inch)	9		1 89	
New York (masons)	4		2 61		Total and average.	53		1 69	
Ohio (bricklayers, masons)	5		3 28		ENGINEERS.				
Pennsylvania (bricklayers, masons)	61		3 03		Alabama	2		2 00	
Virginia (masons)	4		3 00		Belgium	5		80	
West Virginia (masons)	2		3 50		California	1		2 00	
Total and average.	93		2 78		Delaware	2		1 80	
CARPENTERS.					Great Britain	24		1 01	
Belgium	4		60		Illinois	10		3 34	
California	11		3 14		Indiana	9		3 00	
Great Britain	2		1 04		Kentucky	6		1 88	
Illinois	3		1 83		Maryland	8		1 74	
Indiana	5		2 07		Missouri	21		1 78	
Kentucky	1		1 65		New York	35		2 04	
Maryland	1		1 75		Ohio	118		1 82	
Massachusetts	5		2 25		Pennsylvania	98		2 00	
Missouri	15		2 17		Tennessee	3		1 75	
New York	8		1 99		Vermont	5		2 30	
Ohio	21		1 88		Virginia	7		1 77	
Pennsylvania	43		2 50		West Virginia	2		2 50	
Virginia	14		1 57		Total and average.	351		1 85	
Total and average.	133		2 16		FILLERS.				
CATCHERS.					Alabama (top)	4		1 50	
Delaware	6		1 77		Belgium (bottom, top)	12	12	65	\$0 32
Great Britain (catchers; catchers, plate, slab)	15		1 22		Great Britain (fillers; fillers, bottom, top)	74		1 08	
Indiana	8		3 83		Indiana	10		1 35	
Kentucky (bar, plate, sheet)	2		3 75		Maryland	21		1 35	
New York	3		3 25		New York (bottom, top)	38		1 51	
Ohio (catchers; catchers, bar, butt, muck, plate, 8-inch, 9-inch)	28		1 91		Ohio (fillers; fillers, bottom, top)	175		1 30	
Pennsylvania (catchers; catchers, bar, muck, 8-inch, 10-inch)	46		2 48		Pennsylvania (fillers; fillers, bottom, top)	46		1 54	
Virginia (catchers; catchers, guide)	22		2 72		Tennessee (bottom, top)	12		1 13	
West Virginia (plate)	40		1 24		Virginia (fillers; fillers, bottom, top)	66		1 13	
Total and average.	172		2 09		Total and average.	458	12	1 27	33
FIREMEN.					FIREMEN.				
Alabama	5		1 25		Alabama	5		1 25	
Belgium	11		68		Belgium	11		68	
Great Britain	10		80		Great Britain	10		80	
Illinois	10		1 70		Illinois	10		1 70	

a This does not include establishment 428, (catchers not reported).

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

METALS AND METALLIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
FIREMEN—concluded.					HEATERS' HELPERS—concluded.				
Indiana	6		\$1 47		Illinois (heaters' helpers; heaters' helpers, plate, old rail)	24		\$2 47	
Kentucky	3		1 50		Indiana	9		1 80	
Maryland	2		2 14		Kentucky	3		2 80	
Ohio	119		1 23		New York	42		1 85	
Pennsylvania	85		1 65		Ohio (heaters' helpers; heaters' helpers, bar, butt, plate, sheet, 8-inch)	140		1 71	
Virginia	5		1 27		Pennsylvania (heaters' helper; heaters' helpers, bar)	51		1 89	
Total and average.	206		1 29		Virginia (heaters' helpers; heaters' helpers, bar, guide, plate)	31		1 50	
FOREMEN.					West Virginia (plate)	7		1 75	
Alabama	4		2 25		Total and average.	321		1 77	
Belgium	7		1 10		HOOKERS-UP.				
California	1		4 00		Belgium	8		70	
Delaware	1		4 00		Delaware	2		1 25	
Great Britain	16		2 45		Illinois (hookers-up; hookers-up, plate, slab)	14		1 71	
Illinois	3		3 44		New York (hookers-up; hookers-up, tumble)	37		1 98	
Massachusetts	1		3 20		Ohio (hookers-up; hookers up, bar, butt, muck, plate)	50		1 45	
Missouri	10		2 00		Pennsylvania	2		1 80	
New York	27		3 26		West Virginia (plate)	2		1 50	
Ohio (foremen, overseers)	49		3 65		Total and average.	115		1 60	
Pennsylvania	19		3 25		KEEPERS.				
Vermont	13		3 50		Belgium	6		1 00	
Virginia	8		2 41		Great Britain	10		1 85	
Total and average.	169		3 08		Indiana	2		1 85	
HAMMERMEN.					Maryland	9		1 50	
Indiana	2		4 00		New York	6		1 79	
Kentucky	4		4 13		Ohio	20		1 65	
New York	7		2 75		Pennsylvania	6		2 02	
Ohio	6		3 61		Tennessee	2		1 80	
Pennsylvania	40		2 95		Virginia	6		1 93	
Total and average.	59		3 11		Total and average.	67		1 68	
HEATERS.					KEEPERS' HELPERS.				
Belgium	6		1 40		Belgium	18		64	
Delaware	2		3 00		Great Britain	10		1 28	
Illinois (heaters; heaters, old rail, plate)	20		5 25		Indiana	2		1 40	
Indiana	12		4 17		Maryland	9		1 25	
Kentucky (bar, bloom and scrap, 8-inch, 10-inch, plate, sheet, slot)	13		5 56		New York	8		1 53	
New York	43		4 03		Ohio	32		1 34	
Ohio (heaters; heaters, bar, butt, plate, sheet, 8-inch, 9-inch)	a 80		4 34		Pennsylvania	10		1 58	
Pennsylvania (heaters; heaters, bar, 8-inch, 10-inch)	b 27		5 74		Tennessee	2		1 85	
Virginia (heaters; heaters, bar, guide, plate, 18-inch)	54		3 50		Virginia	14		1 43	
West Virginia	7		4 50		Total and average.	105		1 28	
Total and average.	263		4 31						
HEATERS' HELPERS.									
Belgium	12		85						
Delaware	2		1 70						

a Not including 7 heaters in establishment 417, wages being indefinite; also, 4 heaters in establishment 419.

b Not including heaters in establishment 528, number not reported.

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

METALS AND METALIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
LABORERS.					PILES.				
Belgium.....	65		\$0 63		Great Britain (iron)....	7		\$1 08	
Delaware.....	12		1 11		Illinois (old rail).....	4		1 30	
Great Britain.....	118		66		Kentucky (plate).....	4		3 00	
Illinois.....	171		1 33		New York (iron).....	6		1 42	
Indiana.....	158		1 30		Ohio (iron, plate).....	618		1 84	
Kentucky.....	142		1 27		Pennsylvania (iron)....	12		3 00	
Maryland.....	102		1 02		Total and average.....	51		1 75	
Massachusetts.....	18		1 20		PUDDLERS.				
Missouri.....	412		1 25		Delaware.....	6		2 50	
New Hampshire.....	100		1 25		Great Britain.....	240		2 43	
New Jersey.....	12		1 35		Illinois.....	6		4 00	
New York.....	1,459		1 19		Indiana.....	32		4 00	
Ohio.....	1,161		1 08		Kentucky.....	83		3 80	
Pennsylvania.....	1,986		1 20		New York.....	185		2 84	
Vermont.....	62		1 10		Ohio.....	108		3 46	
Virginia.....	339		92		Pennsylvania.....	318		3 47	
West Virginia.....	15		1 25		Virginia.....	124		2 36	
Total and average.....	5,272		1 15		West Virginia.....	36		2 75	
MACHINISTS.					Total and average.....	1,188		3 02	
Belgium.....	9		49		PUDDLERS' HELPERS.				
California.....	79		3 17		Delaware.....	6		1 30	
Great Britain.....	2		1 08		Illinois.....	10		2 25	
Illinois.....	16		2 62		Indiana.....	32		2 00	
Indiana.....	19		2 11		Kentucky.....	84		1 80	
Kentucky.....	1		2 50		New York.....	168		1 51	
Maryland.....	1		2 30		Ohio.....	150		1 64	
Massachusetts.....	40		2 30		Pennsylvania.....	318		2 14	
Missouri.....	3		2 50		Virginia.....	204		1 81	
New Hampshire.....	5		2 25		West Virginia.....	72		1 50	
New Jersey.....	4		2 00		Total and average.....	1,044		1 78	
New York.....	283		1 93		ROLLERS.				
Ohio.....	89		2 19		Belgium (rollers; roller,				
Pennsylvania.....	181		2 35		chief, second, third,				
Vermont.....	10		1 75		fourth).....	12		98	
Virginia.....	17		2 07		Delaware.....	8		2 45	
Total and average.....	709		2 21		Great Britain (forge, rail)	3		3 04	
MILLWRIGHTS.					Illinois (rollers; rollers,				
Great Britain.....	10		90		plate, slab).....	11		7 72	
Kentucky.....	1		5 00		Indiana (bar, guide,				
New York.....	2		2 15		muck).....	3		7 17	
Ohio.....	3		2 27		Kentucky (bar, muck,				
Pennsylvania.....	3		3 63		plate, sheet, 8-inch, 10-				
Virginia.....	3		2 25		inch).....	13		6 73	
Total and average.....	22		1 94		New York (rollers; roll-				
PATTERN MAKERS.					ers, muck).....	43		4 80	
Illinois.....	1		3 10		Ohio (rollers; rollers, bar,				
Indiana.....	2		2 25		bloom, butt, hoop,				
Kentucky.....	1		2 50		guide, muck, plate,				
Massachusetts.....	2		2 60		sheet, rod, 8-inch, 9-				
New Hampshire.....	7		2 50		inch, 18-inch, 22-inch)...	550		6 91	
New Jersey.....	4		2 40		Pennsylvania (rollers;				
Pennsylvania.....	30		2 43		rollers, bar, muck,				
Virginia.....	3		2 00		plate, 8-inch, 10-inch)...	617		5 85	
Total and average.....	50		2 43		Virginia (rollers; rollers,				
					bar, muck, guide, plate,				
					18-inch).....	30		3 64	

* Not including 1 plate piler, with 4 assistants, in establishment 419, the wages of 4 of whom were not reported.

* Not including 8 rollers in establishment 417, also 1 roller in establishment 419, wages being indefinite.

* Not including 6 rollers in establishment 433, and 5 in establishment 432.

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

METALS AND METALLIC GOODS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employes.		Average rates of daily wages.		Occupations and states.	Number of adult employes.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
ROLLERS—concluded.					SHEARMEN—concluded.				
West Virginia (muck, plate)	4		\$6 00		Ohio (shearmen; shear-men, muck, plate)	70		\$1 52	
Total and average.	194		5 25		Pennsylvania	32		2 55	
ROLLERS' HELPERS.					Virginia	4		1 10	
Belgium	8		60		West Virginia	1		8 00	
Illinois (plate)	4		4 20		Total and average.	142		1 98	
Indiana	16		1 50		STRAIGHTENERS.				
Kentucky (rollers' help-ers; rollers' helpers, bar, muck, plate, sheet, 8-inch)	44		2 10		Belgium	5		64	
New York	9		1 32		Great Britain	10		80	
Ohio (rollers' helpers; rollers' helpers, bar, muck)	10		2 25		Kentucky	5		1 00	
Pennsylvania	31		2 19		New York (straighten-ers; straighteners, cold bar)	26		2 00	
West Virginia (muck, plate)	8		2 13		Ohio (cold-bar, hot-bar, 8-inch, 9-inch)	15		2 42	
Total and average.	180		1 96		Pennsylvania (straight-eners; straighteners, cold-bar)	22		2 30	
ROUGHERS.					Total and average.	83		1 90	
Great Britain (forge, rail)	15		1 41		TEAMSTERS.				
Illinois	11		3 50		Alabama	2		1 25	
Indiana	6		3 75		Illinois	3		1 00	
Kentucky (bar, plate, sheet, 8-inch, 10-inch)	11		2 48		Indiana	5		1 40	
New York	26		2 67		Kentucky (cart driver)	1		2 50	
Ohio (roughers; rough-ers, bar, plate, 8-inch, 9-inch)	80		3 02		Maryland (cart drivers, teamsters)	11		1 25	
Pennsylvania (rough-ers; roughers, muck bar, 8-inch, 10-inch)	10		2 77		New Jersey	9		1 37	
Virginia (roughers; roughers, guide, 18-inch)	53		1 96		New York	5		1 10	
Total and average.	212		2 60		Ohio (cart drivers, teamsters)	22		1 28	
SHEARMEN.					Pennsylvania (cart driver)	1		2 25	
Belgium	1		1 20		Virginia (cart drivers)	4		1 09	
Illinois (shearmen; shear-men, plate)	7		3 64		Total and average.	68		1 22	
Indiana	4		4 00		WHEELERS.				
Kentucky (shearmen; shearmen, plate)	13		1 86		Great Britain (coal, fet-ting, metal, slag)	46		90	
New York	10		1 44		New York (coal, coke, limestone)	37		1 35	
					Ohio (ash, coal, iron)	162		1 13	
					Virginia	2		1 10	
					Total and average.	247		1 13	

MUSICAL INSTRUMENTS AND MATERIALS.

BELLYMEN.				FINISHERS—concluded.			
New York	98		3 07	New Hampshire (finish-ers, fly finishers)	3		2 00
Total and average.	98		3 07	New York (finishers, fly finishers)	152		2 28
BOX-ROOM HANDS.				Total and average.	165		2 76
Maine	2		1 30	KEY MAKERS.			
New Hampshire (case makers)	5		1 75	New York	59		2 27
New York (box-room hands, case makers, carpenters)	167		2 47	Total and average.	59		2 27
Total and average.	174		2 43	MACHINISTS.			
FINISHERS.				Maine	8		1 62
Maine (finishers, fly fin-ishers)	10		1 17	New York	23		2 65
				Total and average.	31		2 30

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

PAPER.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult em-ployés.		Average rates of daily wages.		Occupations and states.	Number of adult em-ployés.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
CALENDARMAKERS.					LABORERS.				
Delaware	6		\$1 70		Delaware	17		\$1 57	
Massachusetts	38	13	1 72	\$1 30	Maine	20		1 25	
Total and average ..	44	13	1 71	1 30	Massachusetts	38		1 45	
ENGINEERS.					Oregon	15		1 75	
California	1		4 00		Total and average ..	90		1 48	
Delaware	12		1 82		MACHINE TENDERS.				
Maine	9		2 06		Delaware	42		1 63	
Massachusetts	7		2 93		Maine	13		2 19	
Oregon	5		2 25		Massachusetts	78		2 01	
Total and average ..	34		2 24		New Hampshire ..	30		2 00	
FINISHERS.					Oregon	5		2 75	
Delaware	13		2 89		Vermont	35		2 00	
Maine	6	1	1 92	1 00	Total and average ..	203		1 96	
Massachusetts	72	28	1 64	96	RAG-ENGINE TENDERS.				
New Hampshire ..	8		2 00		Delaware	19		1 84	
Oregon		5		1 75	Massachusetts	57		1 80	
Vermont	10		2 00		New Hampshire ..	30		1 50	
Total and average ..	109	34	1 86	1 08	Vermont	48		1 50	
FOREMEN.					Total and average ..	154		1 65	
California	1		3 00		REPAIR HANDS.				
Delaware	3		3 25		Massachusetts	21		2 81	
Maine	1		4 00		New Hampshire ..	10		2 00	
Massachusetts	12		2 12		Vermont	20		2 00	
New Hampshire ..	5		2 70		Total and average ..	51		2 84	
Vermont	4		3 00						
Total and average ..	26		2 60						

PRINT WORKS.

AGING AND STRAMING HANDS.					ENGRAVERS.				
Massachusetts	37		1 06		Massachusetts	14		4 11	
New Hampshire ..	25		1 23		New Hampshire ..	4		4 28	
Total and average ..	62		1 14		New Jersey	25		2 00	
BLEACHERS.					Pennsylvania	19		3 33	
Massachusetts	29		1 11		Total and average ..	62		3 03	
New Hampshire ..	30		1 32		FOREMEN.				
New Jersey	30		1 00		Massachusetts (over-seers) ..	35		3 20	
New York	7		1 17		New Hampshire ..	1		4 16	
Total and average ..	96		1 15		New York	2		3 00	
COLORERS AND DYERS.					Pennsylvania	20		4 00	
Massachusetts	100		1 18		Total and average ..	58		3 48	
New Hampshire ..	37		1 36		PRINTERS.				
New Jersey	40		1 25		Massachusetts	23		4 40	
Total and average ..	177		1 23		New Hampshire ..	14		4 30	
					New Jersey	10		4 00	
					Pennsylvania	14		4 16	
					Total and average ..	61		4 26	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

TOBACCO.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BUNCH BREAKERS.					LABORERS—concluded.				
Illinois.....		59		\$1 09	Ohio.....	7		\$1 50	
New Jersey.....		20		75	Rhode Island.....	1		1 50	
Ohio.....	116	176	\$1 27	1 22	Virginia.....	215		86	
Total and average.	116	255	1 27	1 15	Total and average.	309	85	93	\$0 80
CIGAR MAKERS.					LUMP MAKERS.				
Connecticut.....	15		2 25		Kentucky.....	2		1 07	
Illinois.....	118	55	1 58	1 45	Missouri.....	69		1 88	
New Jersey.....	81	30	1 81	1 00	New York.....	2	6	1 67	1 23
Ohio.....	248	222	1 52	1 19	North Carolina.....	52		1 38	
Rhode Island.....	14		2 10		Virginia.....	326		1 15	
West Virginia.....	48		1 50		Total and average.	451	6	1 29	1 33
Total and average.	574	307	1 58	1 23	PACKERS.				
CUTTERS.					Connecticut.....	1		3 33	
Illinois.....	10		1 98		Illinois.....	33	15	2 17	83
Kentucky.....	3		1 50		Michigan.....	28		1 00	
Michigan.....	6		2 00		Missouri.....	6	30	2 00	1 10
Missouri.....	10		2 33		New Jersey.....	6		1 50	
New York.....	12		2 00		New York.....	5	50	2 00	1 33
North Carolina.....	24		67		North Carolina.....	50		60	
Virginia.....	25		1 00		Ohio.....	57	2	2 34	1 29
Total and average.	90		1 39		Rhode Island.....	1		2 17	
DRESSERS.					Virginia.....		75		83
Illinois.....	12		1 78		West Virginia.....		2		60
Kentucky.....		6		1 20	Total and average.	182	174	1 62	1 02
Michigan.....	12	4	1 50	1 00	PRESSMEN.				
Missouri.....	12		2 00		Illinois.....	17		1 50	
New York.....	2	3	2 00	1 33	Kentucky.....	5		1 58	
Total and average.	38	13	1 76	1 16	Missouri.....	80		1 24	
ENGINEERS.					New York.....	5		2 00	
Illinois.....	1		2 50		North Carolina.....	16		1 12	
Missouri.....	2		3 91		Virginia.....	167		1 50	
New York.....	1		3 33		Total and average.	290		1 33	
North Carolina.....	1		1 50		STEMMERS.				
Virginia.....	4		1 87		Kentucky.....		10		83
Total and average.	9		2 52		Missouri.....	310		96	
FOREMEN.					New York.....		100		75
Illinois.....	7		2 97		North Carolina.....	2	3	60	45
Kentucky.....	3		2 50		Virginia.....		539		54
Michigan.....	5		3 00		Total and average.	312	652	96	59
Missouri.....	7		2 75		STRIPPERS.				
New Jersey.....	1		2 00		Connecticut.....		4		79
North Carolina.....	21		2 25		Illinois.....		5		1 00
Ohio.....	11		2 86		Kentucky.....		6		1 00
Virginia.....	23		1 94		Rhode Island.....		4		1 00
West Virginia.....	1		2 50		Virginia.....		10		55
Total and average.	79		2 35		Total and average.		29		81
LABORERS.					WRAPPERS.				
Connecticut.....	1		2 00		Illinois.....	30		3 00	
Illinois.....	13		1 42		Kentucky.....	2	4	2 00	2 00
Kentucky.....	28		1 25		Missouri.....	24		96	
Michigan.....	4		1 25		North Carolina.....		53		67
Missouri.....		35		80	Virginia.....	1	41	80	76
New Jersey.....	5		1 13		Total and average.	47	96	1 44	76
North Carolina.....	36		60						

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

WOOLLEN GOODS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
BURLERS.					DYERS—concluded.				
Connecticut.....		13		\$0 69	Illinois.....	4		\$1 35	
Indiana.....		2		75	Indiana.....	34		1 35	
Maryland.....		4		90	Iowa.....	1		1 50	
Massachusetts.....		4		1 15	Kentucky.....	16		1 39	
New Hampshire.....		30		90	Maine.....	4		1 44	
New York.....		66		70	Maryland.....	18		1 25	
North Carolina.....		1		50	Massachusetts.....	57		1 12	
Pennsylvania.....		129		97	Missouri.....	11		1 25	
Total and average.....		249		87	New Jersey.....	8		1 00	
CARDERS.					New York.....	40		1 16	
California.....	9		\$1 75		North Carolina.....	4		75	
Connecticut.....	15		1 20		Pennsylvania.....	49		1 28	
Delaware.....	10		1 42		Vermont.....	24		1 02	
Indiana.....	2		1 50		Total and average.....	291		1 21	
Iowa.....	3		1 25		ENGINEERS.				
Kentucky.....	4	4	1 75	1 10	California.....	1		2 75	
Maine.....		5		70	Delaware.....	2		1 91	
Massachusetts.....	18	3	1 15	85	Illinois.....	1		2 88	
Missouri.....	17		1 25		Indiana.....	4		1 75	
New Hampshire.....		19		80	Iowa.....	1		3 00	
New Jersey.....	10	1	1 13	90	Kentucky.....	2		2 98	
New York.....	16		1 08		Maine.....	1		1 50	
Pennsylvania.....	10		2 65		Maryland.....	2		2 00	
Vermont.....	14		1 00		Massachusetts.....	4		1 94	
Total and average.....	128	32	1 35	86	Missouri.....	1		2 50	
DRAWERS-IN.					North Carolina.....	1		1 83	
Connecticut.....		2		1 17	New Hampshire.....	1		3 00	
Delaware.....	2		1 25		New York.....	3		2 47	
Indiana.....	3		92	63	Pennsylvania.....	3		2 42	
Maryland.....		7		80	Total and average.....	27		2 25	
Massachusetts.....		8		1 14	FINISHERS.				
New York.....	2	6	1 50	1 40	California.....	8		1 00	
Total and average.....	7	25	1 18	1 03	Connecticut.....	14		98	
DRESSERS.					Delaware.....	6		1 54	
California.....	1		2 75		Great Britain.....	37		87	
Connecticut.....	6		1 37		Illinois.....	9	14	1 40	\$0 72
Indiana.....	3		1 53		Indiana.....	16	1	1 29	1 21
Maine.....	1		1 00		Iowa.....	2	3	1 50	75
Massachusetts.....	19	15	1 47	85	Kentucky.....	1		1 43	
New Hampshire.....	6		1 75		Maine.....	1		1 50	
New York.....	5		1 53		Massachusetts.....	51	10	99	82
Pennsylvania.....	8		2 00		Missouri.....	9	13	2 00	2 00
Vermont.....	4		1 23		North Carolina.....	5	3	77	50
Total and average.....	58	15	1 59	85	New Jersey.....	24	24	75	66
DRIERS.					New York.....	2		1 25	
Maine.....	1		1 10		Pennsylvania.....	31		1 50	
Massachusetts.....	11		1 00		Total and average.....	216	68	1 12	96
New Hampshire.....	2		1 15		FIREMEN.				
New York.....	20		1 09		California.....	1		1 50	
Vermont.....	4		1 02		Connecticut.....	3		1 67	
Total and average.....	38		1 06		Delaware.....	1		1 16	
DYERS.					Indiana.....	4		1 50	
California.....	4		1 87		Kentucky.....	2		1 60	
Connecticut.....	11		1 56		Maine.....	1		1 50	
Delaware.....	1		3 00		New Hampshire.....	3		1 56	
Great Britain.....	6		92		New York.....	5		1 29	
					North Carolina.....	1		85	
					Pennsylvania.....	2		1 71	
					Vermont.....	2		1 40	
					Total and average.....	24		1 45	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Continued.

WOOLLEN GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
FULLERS.					MACHINEISTS—concluded.				
California.....	9		\$1 22		Maine.....	2		\$2 00	
Connecticut.....	2		1 18		Maryland.....	2		2 00	
Delaware.....	4		1 41		Massachusetts.....	6		1 95	
Indiana.....	13		1 11		Missouri.....	1		3 50	
Maine.....	2		1 50		New Hampshire.....	3		2 00	
Maryland.....	5		1 43		New York.....	7		2 18	
Massachusetts.....	18		1 03		Pennsylvania.....	4		2 41	
New Hampshire.....	8		1 25		Vermont.....	6		1 78	
New York.....	10		1 09						
Vermont.....	16		1 00						
Total and average.	88		1 14		Total and average.	40		2 12	
GIGGERS.					OVERSEERS.				
Delaware.....	3		1 33		California.....	3		3 29	
Maine.....	2		1 10		Connecticut.....	8		2 48	
Massachusetts.....	40		97		Delaware (foremen, overseers).....	4		2 55	
New York.....	15		1 11		Illinois.....	8		2 52	
Pennsylvania.....	30		1 50		Indiana.....	17		2 98	
Vermont.....	22		1 10		Iowa (foremen).....	4		3 00	
Total and average.	102		1 14		Kentucky.....	10		3 09	
LABORERS.					Maine (foremen, overseers).....	15		2 63	
California.....	6		1 00		Maryland (foremen).....	8		2 44	
Connecticut.....	1		1 25		Massachusetts.....	38		2 06	
Delaware.....	15		1 30		Missouri.....	5		3 25	
Indiana.....	18		1 03		New Hampshire.....	21		2 61	
Iowa.....	3		1 50		New Jersey.....	18		2 50	
Kentucky.....	15		1 33		New York (foremen, overseers).....	19		2 00	
Maine.....	30		1 20		North Carolina.....	5		1 85	
Maryland.....	4		1 25		Pennsylvania (foremen, overseers).....	17		2 93	
Massachusetts.....	24		98		Vermont.....	23		2 61	
Missouri.....	3		1 25		Total and average.	2 23		2 71	
New Hampshire.....	38		1 20						
New Jersey.....	18		1 00		PICKERS.				
New York.....	12		1 08		Delaware.....	6		1 58	
Pennsylvania.....	61		1 37		Indiana.....	3		1 17	
Vermont.....	1		1 10		Kentucky.....	10		1 13	
Total and average.	249		1 21		Maine.....	3	1	\$0 50	
LOOM FIXERS.					Maryland.....	12	9	1 30	68
California.....	1		1 75		Massachusetts.....	16		1 14	
Connecticut.....	2		1 35		North Carolina.....	3		75	
Delaware.....	5		2 15		New Jersey.....	18		1 00	
Great Britain.....	6		1 33		New York.....	8		1 14	
Indiana.....	6		1 74		Pennsylvania.....	50		1 60	
Kentucky.....	5		1 75		Vermont.....	13		1 62	
Maine.....	3		1 70		Total and average.	141	10	1 06	68
Maryland.....	2		1 75						
Massachusetts.....	10		1 90		PRESSERS.				
North Carolina.....	4		1 32		Delaware.....	1		1 33	
New Hampshire.....	4		1 90		Maine.....	1		1 35	
New Jersey.....	12		1 38		Massachusetts.....	5		1 02	
New York.....	12		2 16		New York.....	6		1 30	
Pennsylvania.....	19		2 07		Vermont.....	5		1 12	
Vermont.....	8		1 86		Total and average.	18		1 17	
Total and average.	95		1 96						
MACHINEISTS.					SCOURERS.				
Connecticut.....	2		1 37		California.....	1		1 00	
Delaware.....	1		3 00		Delaware.....	2		1 22	
Illinois.....	1		2 12		Great Britain.....	7		1 30	
Indiana.....	5		2 50		Maine.....	3		1 20	
					Maryland.....	4		1 35	

SUMMARY OF SELECTED OCCUPATIONS, ADULTS—Concluded.

WOOLLEN GOODS—Concluded.

NOTE.—This note is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	Number of adult employees.		Average rates of daily wages.		Occupations and states.	Number of adult employees.		Average rates of daily wages.	
	Male.	Fem.	Male.	Fem.		Male.	Fem.	Male.	Fem.
SCOURERS—concluded.					SPOOLERS—concluded.				
Massachusetts	16		\$1 30		Pennsylvania	28	27	\$1 25	\$0 78
New York	22		1 15		Total and average	34	62	1 22	0 81
Pennsylvania	1		2 33						
Vermont	8		1 06		TRAMSTERS.				
Total and average	64		1 17		Connecticut	1		1 25	
SECOND HANDS.					Delaware	3		1 50	
Connecticut	6		1 25		Maine	1		1 25	
Illinois	1		1 68		Maryland	3		1 38	
Indiana	6		1 56		Massachusetts	4		1 59	
Maine	13		1 46		New Hampshire	2		1 50	
Massachusetts	47		1 54		New York	3		1 86	
New Hampshire	9		1 70		Pennsylvania	1		2 00	
New York	8		2 31		Vermont	4		1 22	
Vermont	17		1 52		Total and average	22		1 43	
Total and average	107		1 58		TWISTERS.				
SHEARERS.					Delaware		3		0 75
California	1		1 16		Maine	1		0 80	
Delaware	1	2	1 33	\$1 00	Massachusetts	4		1 38	
Maine	2		1 25		Missouri		4		1 00
Maryland	1		1 50		Pennsylvania	25	2	1 00	60
Massachusetts	6		93		Total and average	30	9	1 04	0 82
New Hampshire	6		1 44		WEAVERS.				
New York	11		1 15		California	46		1 42	
Pennsylvania	10		1 50		Connecticut		61		1 05
Total and average	38	2	1 27	1 00	Delaware	57	35	1 71	1 36
SPINNERS, MULE.					Great Britain	3	178	1 83	50
Connecticut	29		1 29		Illinois	28		1 52	
Delaware	5		2 31		Indiana	14	167	1 08	1 01
Great Britain	12		83		Iowa	2	15	1 25	1 20
Indiana	4		1 25		Kentucky		290		79
Iowa	1		1 25		Maine	85	15	1 50	1 22
Maine	21		1 68		Maryland	4	69	1 05	99
Maryland	4		1 35		Massachusetts	161	340	1 28	1 16
Massachusetts	83		1 31		Missouri	17	7	1 50	1 50
Missouri	18		1 25		New Hampshire	50	45	1 50	1 50
New Hampshire	18		1 75		New Jersey	50	30	1 00	1 00
New York	27		1 45		New York	126	105	1 08	1 11
North Carolina	3		1 25		North Carolina		17		75
Pennsylvania	35		1 74		Pennsylvania	736	150	1 85	1 33
Vermont	44		1 30		Vermont	43	100	1 17	1 17
Total and average	309		1 42		Total and average	1422	1564	1 58	1 02
SPINNERS, OTHER.					WOOL SORTERS.				
California	6		1 00		California	2		1 25	
Illinois	4	5	1 02	1 02	Delaware	6		1 45	
Indiana	1	20	1 00	75	Great Britain	1		1 20	
Iowa		3		75	Illinois	3		1 92	
Maine	4		1 00		Indiana	15		1 33	
Massachusetts		8		98	Iowa	1		2 00	
New Jersey	18	6	1 00	1 00	Kentucky	6		1 50	
New York	14		1 00		Maine	9		1 58	
Total and average	33	56	1 00	0 89	Maryland	1		2 20	
SPOOLERS.					Massachusetts	24		1 81	
Connecticut		9		73	Missouri	9		1 50	
Delaware		3		1 00	New Hampshire	20		1 78	
Indiana	1		1 50		New Jersey	1	12	80	67
Maine	5		1 00		New York	44		1 65	
Maryland		9		1 00	North Carolina	2		1 00	
New Hampshire	14		85		Pennsylvania	27	13	1 51	75
					Vermont	16		1 77	
					Total and average	187	25	1 62	71

SUMMARY OF SELECTED OCCUPATIONS, CHILDREN AND YOUTH.

AGRICULTURAL IMPLEMENTS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	No. of children and youth.	Average rates of daily wages.	Occupations and states.	No. of children and youth.	Average rates of daily wages.
GRINDERS.			Indiana	1	\$0 50
Indiana	4	\$0 53	Total and average	33	68
Total and average	4	53	PAINTERS.		
LABORERS.			Indiana	3	65
Illinois	32	68	Total and average	3	65

BOOTS AND SHOES.

FITTERS.			SEWING-MACHINE OPERATORS.		
Pennsylvania	32	50	Massachusetts	25	90
Total and average	32	50	Total and average	25	90
HEELERS.			TACKERS.		
Massachusetts	8	1 25	Massachusetts	1	1 10
Total and average	8	1 25	Total and average	1	1 10
PACKERS.			VAMPERS.		
Maryland	1	67	Massachusetts	1	75
New York	54	72	Total and average	1	75
Total and average	55	72			

CARPETINGS.

CARDERS.			SPINNERS, OTHER.		
Massachusetts	57	64	Massachusetts	9	60
Pennsylvania	80	75	New York	23	56
Total and average	137	70	Total and average	31	58
COMBERS.			SPOOLERS.		
Massachusetts	50	50	Massachusetts	10	68
Total and average	50	50	New York	54	78
DESIGNERS.			Total and average	64	76
New York	2	92	TWISTERS.		
Total and average	2	92	Massachusetts	21	70
LABORERS.			Total and average	21	70
Massachusetts	23	78	WINDERS.		
Total and average	23	73	Connecticut	30	65
SELLERS.			Great Britain	17	25
Great Britain	14	83	Massachusetts	30	80
Total and average	14	83	New York	50	65
			Total and average	117	65

SUMMARY OF SELECTED OCCUPATIONS, CHILDREN AND YOUTH—Cont'd.

CLOTHING.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	No. of children and youth.	Average rates of daily wages.	Occupations and states.	No. of children and youth.	Average rates of daily wages.
BUTTON SEWERS.			LOOPERS.		
New York.....	53	\$0 56	New York.....	20	\$0 85
Total and average.....	53	56	Total and average.....	20	85
CARD BOYS.			SEWING-MACHINE OPERATORS.		
New York.....	60	60	Pennsylvania.....	41	41
Virginia.....	9	60	Total and average.....	41	41
Total and average.....	60	60	SPINNERS, OTHER.		
FINISHERS.			New York.....	56	87
New York.....	6	53	Total and average.....	56	87
Pennsylvania.....	50	53	SPOOLERS.		
Virginia.....	26	50	New York.....	7	67
Total and average.....	82	52	Total and average.....	7	67
KNITTERS.			TRIMMERS.		
New York.....	9	56	New York.....	12	60
Pennsylvania.....	36	50	Total and average.....	12	60
Virginia.....	17	52	WINDERS.		
Total and average.....	62	51	New York.....	46	65
LAPPERS.			Total and average.....	46	65
New York.....	4	65			
Total and average.....	4	65			

COOKING AND HEATING APPARATUS.

LABORERS.			NICKEL PLATERS.		
Illinois.....	12	75	Michigan.....	6	75
Michigan.....	3	60	Ohio.....	28	80
Total and average.....	15	72	Total and average.....	34	79
MOULDERS.			PATTERN MAKERS.		
Michigan.....	5	55	Michigan.....	4	74
Total and average.....	5	55	Total and average.....	4	74
MOUNTERS.			POLISHERS.		
Illinois.....	4	75	Michigan.....	3	75
Michigan.....	6	75	Total and average.....	3	75
Total and average.....	10	75			

SUMMARY OF SELECTED OCCUPATIONS, CHILDREN AND YOUTH—Cont'd.

COTTON GOODS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	No. of children and youth.	Average rates of daily wages.	Occupations and states.	No. of children and youth.	Average rates of daily wages.
BACK BOYS.			DRAWERS-IN.		
Connecticut.....	12	\$0 35	Georgia.....	10	\$0 55
Georgia.....	9	32	New York.....	5	58
Maine.....	79	38			
Massachusetts.....	137	43	Total and average.....	15	56
New Hampshire.....	29	39			
New York.....	149	34	FILLING HANDS.		
Total and average.....	415	38	Georgia.....	3	65
BRAMERS.			Maine.....	13	72
Georgia.....	1	75	Maryland.....	23	46
Total and average.....	1	75	Massachusetts.....	3	75
			New York.....	2	75
BOBBIN BOYS.			North Carolina.....	5	88
Georgia.....	5	44	Total and average.....	49	56
Great Britain.....	4	32			
Maine.....	17	70	FOLDERS.		
Maryland.....	5	40	Maryland.....	1	1 00
Massachusetts.....	1	72	Massachusetts.....	2	63
New York.....	99	38	New York.....	22	69
Total and average.....	132	43	Vermont.....	1	75
CARD STRIPPERS.			Total and average.....	26	70
Georgia.....	4	50			
Maine.....	27	80	INSPECTORS.		
Total and average.....	31	76	Virginia.....	2	75
CLOTH-ROOM HANDS.			Total and average.....	2	75
Great Britain.....	7	60			
Total and average.....	7	60	LABORERS.		
DOFFERS.			Georgia.....	32	47
Connecticut.....	11	57	New Hampshire.....	1	67
Georgia.....	19	35	Total and average.....	33	48
Germany.....	47	27			
Great Britain.....	9	43	LAPPERS.		
Maine.....	137	46	Maine.....	3	75
Maryland.....	55	38	New York.....	20	50
Massachusetts.....	230	58	Total and average.....	22	53
New Hampshire.....	43	62			
New York.....	86	40	OILERS.		
North Carolina.....	60	36	Georgia.....	3	49
Pennsylvania.....	19	50	Maine.....	12	52
Vermont.....	15	42	Maryland.....	10	50
Virginia.....	32	39	Massachusetts.....	18	59
Total and average.....	763	47	New York.....	1	62
DRAWERS.			North Carolina.....	9	47
Delaware.....	1	66	Pennsylvania.....	3	90
Georgia.....	13	48	Virginia.....	4	55
Italy.....	18	16	Total and average.....	61	53
Maine.....	22	56			
Massachusetts.....	47	57	PACKERS.		
New York.....	163	39	Maryland.....	2	60
North Carolina.....	3	57	Massachusetts.....	3	73
Pennsylvania.....	2	67	North Carolina.....	1	49
Total and average.....	264	44	Virginia.....	3	63
			Total and average.....	9	66

SUMMARY OF SELECTED OCCUPATIONS, CHILDREN AND YOUTH—Cont'd.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 295, whence derived.

Occupations and states.	No. of children and youth.	Average rates of daily wages.	Occupations and states.	No. of children and youth.	Average rates of daily wages.
PICKERS.			SPARE HANDS.		
Georgia	8	\$0 83	Germany	2	\$0 25
Maine	15	85	Maine	20	71
New York	12	51	Maryland	6	54
North Carolina	2	30	Massachusetts	14	60
Virginia	2	47	New York	3	54
Total and average	39	65	Pennsylvania	5	75
QUILLERS.			Virginia	7	54
Maine	23	67	Total and average	60	68
North Carolina	32	44	SPINDERS.		
Virginia	10	50	Great Britain	23	38
Total and average	65	53	Maryland	2	60
RAILWAY HANDS.			New York	214	50
Great Britain	2	39	Virginia	13	52
Maine	6	63	Total and average	252	49
Maryland	6	66	SPINNERS, OTHER.		
Massachusetts	12	56	Connecticut	28	43
New Hampshire	1	63	Delaware	66	60
North Carolina	4	56	Georgia	71	41
Virginia	3	67	Germany	24	25
Total and average	34	59	Great Britain	27	40
REELERS.			Italy	44	16
Maine	1	72	Maine	178	51
Total and average	1	72	Maryland	32	45
ROVERS.			Massachusetts	230	50
Georgia	4	60	New Hampshire	489	74
Germany	54	31	New Jersey	30	60
Maine	33	49	New York	1,108	36
Maryland	1	75	North Carolina	163	46
Massachusetts	50	54	Vermont	25	65
New York	188	50	Virginia	92	48
Total and average	235	48	Total and average	2,546	47
SCUBBERS.			SPOOLERS.		
Maine	30	45	Georgia	31	34
Total and average	30	45	Italy	140	16
SECOND HANDS.			Massachusetts	34	42
New York	2	67	New York	147	57
Total and average	2	67	Virginia	13	44
SLASHERS.			Total and average	365	38
New York	1	87	SWEETENERS.		
Total and average	1	87	Connecticut	4	38
SLUBBERS.			Georgia	16	28
Maine	2	45	Italy	4	16
New York	36	55	Maine	51	35
Virginia	4	44	Maryland	17	30
Total and average	42	53	Massachusetts	11	46
SPINNERS.			New Hampshire	9	46
Delaware	2	43	New York	10	50
Maine	5	35	North Carolina	15	30
Maryland	11	50	Pennsylvania	2	50
TWISTERS.			Vermont	6	42
Delaware	2	43	Virginia	8	35
Maine	5	35	Total and average	158	35
Maryland	11	50	TWISTERS.		
TWISTERS.			Delaware	2	43
Delaware	2	43	Maine	5	35
Maine	5	35	Maryland	11	50
Maryland	11	50	TWISTERS.		

SUMMARY OF SELECTED OCCUPATIONS, CHILDREN AND YOUTH—Cont'd.

COTTON GOODS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	No. of children and youth.	Average rates of daily wages.	Occupations and states.	No. of children and youth.	Average rates of daily wages.
TWISTERS—concluded.			WARPERS—concluded.		
New Hampshire.....	53	\$0 66	Virginia.....	8	\$0 50
New York.....	6	50	Total and average.....	106	49
North Carolina.....	14	52			
Total and average.....	91	62	WEAVERS.		
WARPERS.			New York.....	170	41
New York.....	88	48	Total and average.....	170	41
North Carolina.....	12	58			

FURNITURE.

CABINET MAKERS.			LABORERS.		
Michigan.....	6	50	Michigan.....	1	65
Total and average.....	6	50	Total and average.....	1	65
CARVERS.			MACHINE MEN.		
Michigan.....	6	67	Indiana.....	58	58
Total and average.....	6	67	Michigan.....	18	58
			Total and average.....	76	58

GLASS.

GATHERERS.			PACKERS.		
California.....	14	1 25	Kentucky.....	2	75
New Jersey.....	26	1 00	Total and average.....	2	75
Ohio.....	8	1 25			
Pennsylvania.....	29	98			
Total and average.....	77	1 06			

LEATHER.

FINISHERS.			SHAYERS.		
Delaware.....	46	65	Delaware.....	1	67
Total and average.....	46	65	Total and average.....	1	67

MACHINES AND MACHINERY.

MACHINISTS.					
Indiana.....	1	\$1 00			
Total and average.....	1	1 00			

SUMMARY OF SELECTED OCCUPATIONS, CHILDREN AND YOUTH—Cont'd.

METALS AND METALLIC GOODS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 296, whence derived.

Occupations and states.	No. of children and youth.	Average rates of daily wages.	Occupations and states.	No. of children and youth.	Average rates of daily wages.
CART DRIVERS.			LABORERS.		
Virginia	2	\$0 50	Pennsylvania	2	\$0 75
Total and average	2	50	Total and average	2	75
KNIFERS' HELPERS.					
Ohio	2	1 15			
Total and average	2	1 15			

MUSICAL INSTRUMENTS AND MATERIALS.

FINISHERS AND FLY FINISHERS.					
New York	10	1 25			
Total and average	10	1 25			

PAPER.

FINISHERS.					
Massachusetts	1	48			
Total and average	1	48			

PRINT WORKS.

ASKING AND STREAMING HANDS.			BLEACHERS—concluded.		
New Hampshire	8	75	New Hampshire	23	82
Total and average	8	75	Total and average	23	73
BLEACHERS.			COLORERS AND DYERS.		
Massachusetts	21	65	Massachusetts	26	71
			Total and average	26	71

TOBACCO.

BUNCH BREAKERS.			STEMMERS.		
Ohio	50	23	North Carolina	61	22
Total and average	50	23	Virginia	323	34
DECKERS.			Total and average	384	34
Illinois	2	75	STRIPPERS.		
Total and average	2	75	Illinois	168	47
LABORERS.			Kentucky	44	80
North Carolina	4	40	Michigan	55	80
Virginia	25	43	Missouri	30	1 00
Total and average	29	43	New Jersey	10	66
PACKERS.			North Carolina	53	45
North Carolina	19	25	Ohio	124	43
Total and average	19	25	Virginia	25	45
			West Virginia	10	50
			Total and average	582	56
			WRAPPERS.		
			Virginia	125	50
			Total and average	125	50

SUMMARY OF SELECTED OCCUPATIONS, CHILDREN AND YOUTH—Concluded.

WOOLLEN GOODS.

NOTE.—This table is not a complete exhibit of industries for states, but covers only the principal occupations in establishments investigated. See detail table, Appendix A, page 235, whence derived.

Occupations and states.	No. of children and youth.	Average rates of daily wages.	Occupations and states.	No. of children and youth.	Average rates of daily wages.
BURLERS.			LABORERS.		
Delaware.....	25	\$0 61	Delaware.....	1	\$0 56
Great Britain.....	30	44	Indiana.....	1	85
New York.....	19	62	Massachusetts.....	7	89
North Carolina.....	1	50	Vermont.....	1	56
Vermont.....	173	59			
Total and average.....	248	58	Total and average.....	10	67
CARDERS.			PICKERS.		
Connecticut.....	9	57	Illinois.....	3	48
Delaware.....	9	91	Maryland.....	4	80
Illinois.....	9	58	Vermont.....	1	55
Indiana.....	37	66			
Iowa.....	4	75	Total and average.....	7	67
Kentucky.....	25	66	PRESSERS.		
Maine.....	14	71	Vermont.....	15	79
Massachusetts.....	65	76			
New Jersey.....	6	45	Total and average.....	15	79
New York.....	25	76			
North Carolina.....	4	44	SPINNERS, MULE.		
Vermont.....	3	61	New York.....	11	75
Total and average.....	220	70	Total and average.....	11	75
DRAWERS-IN.			SPINNERS, OTHER.		
Delaware.....	2	50	Indiana.....	86	59
Indiana.....	3	74	Kentucky.....	48	62
Total and average.....	5	64	New Jersey.....	12	43
DRESSERS.			New York.....	41	50
Illinois.....	5	44	Total and average.....	187	57
Pennsylvania.....	10	67			
Total and average.....	15	56	SPOOLERS.		
DRIERS.			California.....	3	75
Connecticut.....	5	56	Delaware.....	6	50
Total and average.....	5	56	Indiana.....	7	59
DYERS.			Massachusetts.....	44	59
North Carolina.....	4	75	New York.....	45	52
Total and average.....	4	75	Vermont.....	12	47
FINISHERS.			Total and average.....	117	55
Great Britain.....	32	36	TWISTERS.		
Indiana.....	24	68	Iowa.....	5	66
Kentucky.....	30	54	New York.....	67	62
Maryland.....	5	66	Total and average.....	72	62
North Carolina.....	7	64			
Total and average.....	96	53	WEAVERS.		
FULLERS.			Massachusetts.....	5	50
Indiana.....	6	65	New Jersey.....	22	50
Total and average.....	6	65	New York.....	2	81
GIGGERS.			Total and average.....	29	53
New York.....	1	75	WOOL SORTERS.		
Total and average.....	1	75	Indiana.....	5	77
			Kentucky.....	7	44
			Maryland.....	3	80
			Total and average.....	14	61

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.

AGRICULTURAL IMPLEMENTS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
ILLINOIS.					
Blacksmiths.....	219			219	9.27
Blacksmiths' helpers.....	3			3	.13
Foremen.....	23			23	.93
Grinders.....	80			80	3.39
Laborers.....	744		32	776	32.85
Machinists.....	426			426	18.04
Moulders.....	171			171	7.24
Painters.....	138			138	5.84
Wood workers.....	80			80	3.39
All others.....	447			447	18.92
Total.....	2,330		32	2,362	100.00
INDIANA.					
Blacksmiths.....	13			13	1.80
Blacksmiths' helpers.....	13			13	2.05
Foremen.....	16			16	2.53
Grinders.....	96		4	100	15.80
Laborers.....	42		1	43	6.79
Machinists.....	4			4	.63
Moulders.....	162			162	25.59
Painters.....	10		3	13	2.05
Wood workers.....	14			14	2.22
All others.....	214		42	256	40.44
Total.....	588		50	633	100.00
KENTUCKY.					
Blacksmiths.....	4			4	8.70
Blacksmiths' helpers.....	6			6	12.04
Foremen.....	3			3	6.52
Grinders.....	15			15	32.61
Laborers.....	6			6	12.04
Moulders.....	8			8	17.39
Wood workers.....	4			4	8.70
Total.....	46			46	100.00
MAINE.					
Foremen.....	3			3	6.52
Grinders.....	12			12	26.09
Laborers.....	7			7	15.22
Painters.....	3			3	6.52
All others.....	21			21	45.65
Total.....	46			46	100.00
NEW YORK.					
Foremen.....	2			2	3.13
Grinders.....	7			7	10.98
Laborers.....	2			2	3.13
Machinist.....	1			1	1.56
All others.....	52			52	81.25
Total.....	64			64	100.00
OHIO.					
Blacksmiths.....	176			176	6.53
Blacksmiths' helpers.....	85			85	3.12

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

AGRICULTURAL IMPLEMENTS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 286, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
OHIO—concluded.					
Foremen	29			29	1.06
Grinders, (grinders, grinders and polishers)	59			59	2.19
Laborers	345			345	12.80
Machinists	506			506	18.78
Moulders	102			102	3.79
Painters	270			270	10.02
Wood workers	377			377	13.99
All others	744		2	746	27.68
Total	2,698		2	2,695	100.00
PENNSYLVANIA.					
Blacksmiths	8			8	2.88
Blacksmiths' helpers	8			8	2.88
Foreman	1			1	1.28
Laborers	39			39	48.15
Moulders	22			22	27.16
Painter	1			1	1.23
All others	2			2	2.47
Total	81			81	100.00
/BOOTS AND SHOES.					
CALIFORNIA.					
Buffers	6			6	1.80
Burnishers	13			13	3.89
Button-hole makers	8			8	2.40
Button sewer		1		1	.30
Channellers	4			4	1.20
Cutters	37			37	11.06
Edge setters	8			8	2.40
Edge trimmers	9			9	2.69
Fitters	6			6	1.80
Foreman	6			6	1.80
Heelers	15			15	4.49
Lasters	77			77	23.05
Packers	7			7	2.10
Sewing-machine operators	24	32		56	16.77
Vampers	6			6	1.80
All others	68	7		75	22.45
Total	294	40		334	100.00
ILLINOIS.					
Burnishers	6			6	3.30
Cutters	8			8	4.29
Fitters		60		60	32.97
Heelers	10			10	5.49
Lasters	8			8	4.40
All others	90			90	49.45
Total	122	60		182	100.00
KENTUCKY.					
Bottomers	20			20	31.75
Cutters	4			4	6.35
Fitters	3	30		33	52.88
Lasters	6			6	9.53
All others					
Total	33	30		63	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

BOOTS AND SHOES—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
MARYLAND.					
Bottomers.....	84			84	9.43
Burnishers.....	7			7	1.94
Cutters.....	19			19	5.26
Edge setters.....	3			3	.83
Edge trimmers.....	2			2	.56
Fitters.....	7	128		135	37.40
Foreman.....	8			8	2.22
Healers.....	2			2	.55
Lasters.....	20			20	5.54
Levelers.....	2			2	.55
Packer.....	1		1	2	.55
Sandpaperers.....	2			2	.55
Tackler.....	1			1	.28
Turners.....	2			2	.55
All others.....	72	2	48	122	38.80
Total.....	182	130	49	361	100.00
MASSACHUSETTS.					
Bottomers.....	164			164	7.40
Buffers.....	3			3	.13
Burnishers.....	26			26	1.17
Cutters.....	376	24		400	18.05
Edge setters.....	86			86	3.82
Edge trimmers.....	80			80	3.35
Fitters.....	86	80		166	5.28
Foreman.....	12			12	.58
Healers.....	45		8	53	2.38
Laborers.....	17			17	.77
Lasters.....	291			291	13.14
Levelers.....	9			9	.41
Moulder.....	1			1	.05
Packers.....	30			30	1.35
Sandpaperers.....	7			7	.32
Sewers, McKay machine.....	2			2	.09
Sewing-machine operators.....	78	352	25	455	20.54
Skivers.....	4	7		11	.50
Tacklers.....	6	9	1	16	.72
Turners.....	4			4	.18
Vampers.....	11	2	1	14	.68
All others.....	385	86	46	517	23.34
Total.....	1,574	560	81	2,215	100.00
NEW JERSEY.					
Cutters.....	25			25	9.63
Fitters.....	25	60		85	32.69
All others.....	125		25	150	57.69
Total.....	175	60	25	260	100.00
NEW YORK.					
Binders.....	55			55	1.91
Blockers.....	17			17	.59
Bottomers.....	218			218	7.38
Brushers.....	13			13	.45
Buffers.....	27			27	.94
Burnishers.....	14			14	.49
Button-hole makers.....		70		70	2.43
Button sewers.....	4			4	.14
Channellers.....	26			26	.90
Closers.....	23	19		41	1.43
Cutters.....	338			338	11.72

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

BOOTS AND SHOES—Concluded.

NOTE.—This table is not a complete exhibit for industries or States, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 296, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW YORK—concluded.					
Edge setters	19			19	.06
Edge trimmers.....	49			49	1.79
Fitters	9			9	.31
Foremen	70			70	2.42
Heelers	80			80	1.04
Laborers	84			84	2.91
Lasters	219			219	7.60
Levellers	19			19	.06
Measurers	17			17	.59
Moulders	16			16	.56
Packers	1		54	55	1.91
Sand-paperers	13			13	.45
Seam rubbers		15		15	.52
Seat wheelers	14			14	.49
Sewers, McKay machine	11			11	.38
Sewing-machine operators	9	988		997	34.58
Skivers	29			29	1.09
Tackers	33			33	1.14
Turners	25			25	.87
Vampers	62			62	2.15
All others	80	58	141	279	9.68
Total	1,538	1,150	195	2,883	100.00
OHIO.					
Bottomers	225			225	29.11
Cutters	40			40	5.17
Fitters	25	325		350	45.28
Foremen	3			3	.39
Packers	3			3	.39
All others	85		67	152	19.06
Total	381	325	67	773	100.00
PENNSYLVANIA.					
Butlers	6			6	.06
Burnishers	12			12	1.31
Button-hole makers	3	9		12	1.31
Button sewers		39		39	4.27
Closers	25			25	2.74
Cutters	28			28	3.07
Edge setters	14			14	1.53
Edge trimmers	8			8	.88
Fitters	59		32	91	9.97
Heelers	13			13	1.43
Laborers	38			38	4.19
Lasters	110			110	12.05
Packers	6			6	.66
Seam rubbers	6			6	.66
Sewing-machine operators	29	71		100	10.95
Tackers	4			4	.44
Turners	57			57	6.25
Vampers	14			14	1.48
All others	109	98	66	230	26.14
Total	601	212	100	913	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

BROOMS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 296, whence derived.

States and occupations.	Number of employée.				Per cent. of number of employée in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW YORK.					
Laborers	185	.....	.....	185	37.60
Winders	98	.....	.....	98	27.30
All others	126	.....	.....	126	35.10
Total.....	359	.....	.....	359	100.00

CARPETINGS.

CONNECTICUT.					
Dyers	10	.....	.....	10	11.38
Finishers .....	.....	10	.....	10	11.38
Weavers .....	.....	48	.....	48	54.55
Winders .....	.....	.....	20	20	23.73
Total.....	10	58	20	88	100.00
GREAT BRITAIN.					
Designers	10	.....	.....	10	2.51
Dyers	9	.....	.....	9	2.26
Foremen and overseers	6	.....	.....	6	1.51
Laborers	8	.....	.....	8	2.01
Printers	26	7	.....	32	8.04
Setters .....	.....	21	14	35	8.79
Weavers	116	.....	.....	116	29.15
Winders .....	.....	20	17	44	11.56
All others	51	4	81	136	34.17
Total.....	225	61	112	398	100.00
MASSACHUSETTS.					
Carders	13	30	57	100	6.38
Combers .....	.....	.....	50	50	8.19
Dressers	6	.....	.....	6	.88
Dyers	125	.....	.....	125	7.98
Engineers	15	.....	.....	15	.96
Finishers	19	95	.....	114	7.28
Laborers	68	.....	23	86	5.49
Loom fixers	4	.....	.....	4	.26
Machinists	4	.....	.....	4	.26
Printers	8	.....	.....	8	.51
Receivers	28	.....	.....	28	1.78
Setters .....	.....	14	.....	14	.89
Spinners, mule	37	.....	.....	37	2.36
Spinners, other .....	.....	102	9	111	7.08
Spoolers .....	.....	12	10	22	1.40
Twisters .....	.....	.....	21	21	1.34
Warpers	15	.....	.....	15	.96
Weavers	64	359	.....	423	28.99
Winders	40	84	30	154	9.83
Wool sorters	28	3	.....	31	1.98
All others	87	70	42	199	12.70
Total.....	556	760	242	1,567	100.00
NEW YORK.					
Carders	34	.....	.....	34	.40
Combers	20	88	.....	108	1.18
Designers	37	.....	3	39	.45

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

CARPETINGS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the State.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW YORK—concluded.					
Drawers	5	194		199	2.27
Dressers	101			101	1.15
Dyers	63			63	.73
Engineers	12			12	.14
Finishers	67			67	.77
Foremen and overseers	170			170	1.94
Harness fixers	23			23	.26
Inspectors	26	29		55	.63
Laborers	126			126	1.55
Loom fixers	68			68	.72
Machinists	83			83	.94
Printers	254			254	2.90
Scourers	173			173	1.96
Setters	91	356		447	5.11
Spinners, mule	124			124	1.43
Spinners, other	299	302	22	623	7.12
Spoolers	62	244	54	360	4.11
Twisters	8	229		237	2.71
Warpers	28			28	.32
Weavers	426	914		1,340	15.30
Winders	36	312	50	398	4.56
Wool sorters	122			122	1.40
All others	1,647	650	1,204	3,501	39.97
Total	4,110	2,814	1,332	8,756	100.00
PENNSYLVANIA.					
Carders			80	80	4.26
Combers		5		5	.27
Drawers		30		30	1.60
Dyers	18			18	.93
Engineer	1			1	.05
Laborers	400			400	21.27
Loom fixers	21			21	1.12
Machinists	16			16	.85
Printers	30			30	1.60
Setters	120			120	6.23
Spinners, other		60		60	3.19
Spoolers	4	80		84	4.47
Twisters		30		30	1.60
Warpers	2			2	.11
Weavers	615			615	32.70
Winders		28		28	1.49
All others	510	30		540	28.06
Total	1,537	262	80	1,880	100.00

CARRIAGES AND WAGONS.

CONNECTICUT.					
Blacksmiths	55	.....	.....	55	12.50
Blacksmiths' helpers	58	.....	.....	58	14.25
Foremen	3	.....	.....	3	.73
Laborers	12	.....	.....	12	2.95
Painters	96	.....	.....	96	22.50
Trimmers	73	.....	.....	73	17.04
Wood workers (body makers)	30	.....	.....	30	7.23
All others	30	.....	.....	30	7.23
Total	407	.....	.....	407	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

CARRIAGES AND WAGONS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 255, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
ILLINOIS.					
Blacksmiths.....	53			53	13.98
Blacksmiths' helpers.....	37			37	9.95
Foremen.....	11			11	2.96
Laborers.....	13			13	3.22
Painters.....	92			92	24.73
Trimmers.....	52			52	13.98
Wood workers.....	73			73	19.62
All others.....	20		23	43	11.56
Total.....	349		23	372	100.00
NEW JERSEY.					
Blacksmiths.....	16			16	30.77
Painters.....	18			18	34.61
Trimmers.....	6			6	11.54
Wood workers (body makers).....	10			10	19.23
All others.....	3			3	5.85
Total.....	53			53	100.00
OHIO.					
Blacksmiths.....	70			70	11.24
Blacksmiths' helpers.....	14			14	2.25
Foremen.....	30			30	4.82
Laborers.....	23			23	3.69
Painters.....	97			97	15.57
Trimmers.....	8			8	1.28
Wood workers (wood workers, body makers).....	58			58	9.31
All others.....	278	45		323	51.84
Total.....	578	45		623	100.00
PENNSYLVANIA.					
Blacksmiths.....	4			4	18.18
Blacksmiths' helpers.....	6			6	27.27
Painters.....	3			3	13.64
Trimmer.....	1			1	4.55
Wood workers.....	4			4	18.18
All others.....			4	4	18.18
Total.....	18		4	22	100.00

CLOTHING.

NEW JERSEY.					
Engineers.....	2			2	.46
Finishers.....	116			116	26.48
Foremen.....	4			4	.91
Laborers.....	7			7	1.60
Trimmers.....		60		60	13.70
All others.....	196	36	15	249	56.85
Total.....	327	96	15	438	100.00
NEW YORK.					
Button-hole makers.....		18		18	1.04
Button sewers.....		9	53	62	3.57
Card boys.....			60	60	3.46

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

CLOTHING—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Percent of number of employes in each occupation of the whole number considered in the industry in the state
	Adult male.	Adult female.	Children and youth.	Total.	
NEW YORK—concluded.					
Cutters	20	2	.....	22	1.37
Engineers	8	.....	.....	8	.48
Finishers	39	231	6	276	15.90
Foremen (foremen, overseers)	45	4	.....	49	2.82
Hemmers .....	.....	38	.....	38	2.19
Inspectors .....	.....	16	.....	16	.92
Knitters	1	77	9	87	5.01
Laborers	7	.....	.....	7	.40
Lappers	28	.....	4	32	1.84
Loopers	2	109	20	131	7.55
Menders .....	.....	86	.....	86	4.95
Sewing-machine operators .....	.....	180	.....	180	10.37
Spinners, mule	31	.....	.....	31	1.79
Spinners, other .....	.....	.....	56	56	3.28
Spoolers	2	6	7	15	.88
Trimmers .....	.....	25	12	37	2.13
Wash-room hands	49	.....	.....	49	2.82
Winders .....	.....	75	46	121	6.97
All others	109	125	61	355	20.45
Total	401	1,001	334	1,736	100.00
PENNSYLVANIA.					
Button-hole makers .....	.....	15	.....	15	1.76
Cutters	15	17	.....	32	3.78
Engineers	8	.....	.....	8	.95
Finishers	126	.....	50	186	21.83
Knitters .....	.....	.....	36	36	4.23
Laborers	24	.....	.....	24	2.83
Sewing-machine operators .....	.....	.....	41	41	4.81
Trimmers .....	.....	120	.....	120	14.08
Wash-room hands	9	.....	.....	9	1.06
Winders .....	.....	6	.....	6	.70
All others	343	17	20	380	44.60
Total	530	175	147	852	100.00
VIRGINIA.					
Card boys .....	.....	.....	9	9	7.97
Engineer	1	.....	.....	1	.89
Finishers	4	27	26	37	50.44
Knitters	2	.....	17	19	16.81
Laborers	3	.....	.....	3	2.06
Spinners, mule	7	.....	.....	7	6.19
All others	14	.....	3	17	15.04
Total	31	27	55	113	100.00

COAL, COKE, AND ORE.

GREAT BRITAIN.					
Blacksmiths	3	.....	.....	3	.45
Blacksmiths' helpers	2	.....	.....	2	.29
Drivers	11	.....	.....	11	1.64
Dumppers	4	.....	.....	4	.60
Engineer (stationary)	1	.....	.....	1	.15
Fireman	20	.....	.....	20	2.96
Laborers	23	.....	.....	23	3.43
Miners	265	.....	.....	265	42.54

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

COAL, COKE, AND ORE—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 296, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
GREAT BRITAIN—concluded.					
Stableman	1			1	.15
Track layers	25			25	3.73
Weighers	5			5	.75
All others	136		154	290	43.28
Total	516		154	670	100.00
INDIANA.					
Blacksmiths	16			16	.97
Drivers	85			85	5.19
Engineers	26			26	1.58
Laborers	91			91	5.55
Mine bosses	6			6	.37
Miners	1,375			1,375	83.89
Track layers	25			25	1.58
Weighers	15			15	.92
All others					
Total	1,639			1,639	100.00
MARYLAND.					
Blacksmiths	6			6	.64
Blacksmiths' helpers	5			5	.53
Carpenters	5			5	.53
Drivers	83			83	8.88
Dumpers	20			20	2.14
Engineers	2			2	.22
Fireman	1			1	.11
Laborers	16			16	1.71
Miners	762			762	81.50
Stablemen	7			7	.75
Track layers	10			10	1.07
Weighers	5			5	.53
All others	5		8	13	1.29
Total	927		8	935	100.00
MISSOURI.					
Blacksmith	1			1	.30
Blacksmith's helper	1			1	.30
Carpenters	4			4	1.20
Drivers	7			7	2.09
Engineers	7			7	2.10
Fireman	1			1	.30
Laborers	18			18	5.39
Mine boss	1			1	.30
Miners	239			239	71.55
Track layers	5			5	1.50
Weigher	1			1	.30
All others	14		35	49	14.67
Total	299		35	334	100.00
OHIO.					
Blacksmiths	13			13	.93
Blacksmiths' helpers	2			2	.14
Carpenters	5			5	.36
Drivers	100			100	7.17
Dumpers	17			17	1.22

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

COAL, COKE, AND ORE—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 236, whence derived.

States and occupations.	Number of employes.				Percent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
OHIO—concluded.					
Engineers (engineers; engineers, locomotive, stationary).....	15			15	1.06
Firemen.....	8			8	.57
Laborers.....	49			49	3.51
Mine bosses.....	13			13	.88
Miners.....	1,055			1,055	75.83
Stablemen.....	4			4	.29
Track layers.....	21			21	1.51
Weighers.....	9			9	.65
All others.....	51		33	84	6.02
Total.....	1,862		33	1,895	100.00
PENNSYLVANIA.					
Blacksmiths.....	19			19	.53
Carpenters.....	13			13	.37
Drivers.....	108			108	2.97
Dumppers.....	12			12	.34
Engineers (engineers; engineers, locomotive, stationary).....	14			14	.39
Laborers.....	428			428	12.09
Mine bosses.....	20			20	.56
Miners.....	1,855			1,855	52.63
Weighers.....	3			3	.09
All others.....	1,095			1,095	30.72
Total.....	3,565			3,565	100.00
VIRGINIA.					
Blacksmiths.....	4			4	.96
Blacksmiths' helpers.....	3			3	.72
Carpenters.....	7			7	1.67
Drivers.....	7			7	1.67
Engineers.....	5			5	1.20
Firemen.....	3			3	.72
Laborers.....	235			235	56.32
Mine bosses.....	14			14	3.35
Miners.....	113			113	27.08
Stablemen.....	2			2	.48
Track layers.....	6			6	1.44
All others.....	8		11	19	4.55
Total.....	407		11	418	100.00
WEST VIRGINIA.					
Blacksmiths.....	12			12	1.26
Blacksmith's helper.....	1			1	.19
Carpenters.....	12			12	1.25
Drivers.....	96			96	10.01
Dumppers.....	6			6	.63
Engineers (engineers; engineers, locomotive; stationary).....	8			8	.83
Laborers.....	49			49	5.11
Mine bosses.....	8			8	.84
Miners.....	662			662	68.03
Stablemen.....	4			4	.43
Track layers.....	26			26	2.71
Weighers.....	7			7	.73
All others.....	45		23	68	7.09
Total.....	936		23	959	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

COOKING AND HEATING APPARATUS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 235, whence derived.

States and occupations.	Number of employes.				Percent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
ILLINOIS.					
Blacksmiths	2			2	.32
Carpenters	2			2	.32
Cupola men	16			16	2.67
Engineers	6			6	1.00
Foremen	4			4	.67
Grinders	4			4	.67
Laborers	41		12	53	8.85
Machinists	10			10	1.67
Moulders	267			267	44.57
Mounters	54		4	58	9.66
Nickel plater	1			1	.17
Pattern makers	12			12	2.00
Polisher	1			1	.17
All others	102		61	163	27.21
Total	522		77	599	100.00
KENTUCKY.					
Laborers	13			13	23.21
Moulders	37			37	68.07
Mounters	6			6	10.72
All others					
Total	56			56	100.00
MICHIGAN.					
Blacksmiths	4			4	.21
Engineers	2			2	.10
Foremen	27			27	1.38
Grinders	51			51	2.61
Japanners	2			2	.10
Laborers	19		3	22	1.13
Machinists	5			5	.26
Moulders	430		5	435	22.80
Mounters	151		6	157	8.05
Nickel platers	5		6	11	.56
Pattern makers	49		4	53	2.73
Polishers	96		3	101	5.18
Teamsters	16			16	.82
Tinsmiths	12			12	.61
All others	351		702	1,053	53.97
Total	1,222		729	1,951	100.00
NEW YORK.					
Blacksmiths	14			14	.65
Carpenters	38			38	1.50
Cupola men	12			12	.51
Engineers	5			5	.21
Foremen	29			29	1.14
Grinders	35			35	1.38
Japanners	9			9	.35
Laborers	263			263	15.08
Machinists	5			5	.20
Moulders	945			945	37.20
Mounters	56			56	2.30
Nickel platers	18			18	.71
Pattern makers	12			12	.47
Polishers	43			43	1.69
Teamsters	19			19	.75
Tinsmiths	58			58	2.38
All others	348		510	858	33.78
Total	2,030		510	2,540	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

COOKING AND HEATING APPARATUS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 296, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
OHIO.					
Blacksmith.....	1			1	.12
Carpenters.....	4			4	.47
Cupola men.....	3			3	.36
Engineers.....	4			4	.47
Foremen.....	9			9	1.05
Laborers.....	15			15	1.75
Machinists.....	7			7	.82
Moulders.....	359			359	41.64
Mounters.....	142			142	16.59
Nickel platers.....	30		28	58	6.77
Pattern makers.....	19			19	2.23
Polishers.....	13			13	1.53
Teamster.....	1			1	.11
Tinsmiths.....	3			3	.35
All others.....	167		51	218	25.47
Total.....	777		79	856	100.00
PENNSYLVANIA.					
Blacksmith.....	1			1	1.26
Engineer.....	1			1	1.26
Foremen.....	2			2	2.56
Laborers.....	10			10	12.82
Moulders.....	48			48	61.54
Mounters.....	12			12	15.39
Pattern makers.....	2			2	2.57
Teamster.....	1			1	1.26
All others.....	1			1	1.26
Total.....	78			78	100.00
WEST VIRGINIA.					
Carpenter.....	1			1	1.59
Cupola man.....	1			1	1.59
Engineer.....	1			1	1.59
Laborers.....	13			13	20.63
Moulders.....	23			23	36.51
Mounters.....	9			9	14.29
Pattern maker.....	1			1	1.58
All others.....	2		12	14	22.22
Total.....	51		12	63	100.00

COTTON GOODS.

CONNECTICUT.					
Back boys.....			12	12	3.90
Card grinders.....	2			2	.65
Card strippers.....	4			4	1.39
Doffers.....		4	11	15	4.87
Drawers.....		9		9	2.82
Engineer.....	1			1	.32
Filling hand.....	1			1	.32
Folder.....	1			1	.32
Inspector.....		1		1	.32
Laborers.....	2			2	.65
Lappers.....	3			3	.98
Machinists.....	2			2	.65
Oiler.....	1			1	.32
Overseers.....	5			5	1.63

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 235, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
CONNECTICUT—concluded.					
Railway hand		1		1	.32
Second hands	4			4	1.30
Section hands	5			5	1.62
Slasher	1			1	.32
Stubbers	3			3	.98
Speeders		18		18	5.85
Spinners, mule	15			15	4.87
Spinners, other			28	28	9.09
Spoolers		18		18	5.85
Sweepers			4	4	1.30
Trimmers		2		2	.65
Warpers		3		3	.98
Watchmen	2			2	.65
Weavers	43	97		140	45.46
All others	5			5	1.62
Total	100	153	55	308	100.00
DELAWARE.					
Beamers	11			11	3.33
Carders	33			33	10.00
Card stripper	1			1	.30
Drawer			1	1	.30
Dyers	6			6	1.82
Laborers	5			5	1.52
Loom fixers	2			2	.61
Spinner, mule	1			1	.30
Spinners, other			66	66	20.00
Spoolers		3		3	.91
Twisters			2	2	.61
Weavers		153		153	46.36
All others	22	2	22	46	13.94
Total	81	158	91	330	100.00
FRANCE.					
Carders	2			2	.79
Card grinder	1			1	.39
Drawers	6	3		9	3.54
Engineers	2			2	.79
Firemen	2			2	.79
Laborers	2			2	.79
Others	2			2	.79
Overseers	5			5	1.97
Spinners, mule	7			7	2.75
Warpers	5			5	1.97
Watchman	1			1	.39
Weavers		100		100	39.87
All others	41	57	18	116	45.67
Total	76	160	18	254	100.00
GEORGIA.					
Back boys			9	9	1.96
Beamer			1	1	.15
Blacksmiths	2			2	.30
Bobbin boys			5	5	.76
Card grinders	6			6	.91
Card strippers	2		4	6	.91
Cloth-room hand	1			1	.15
Dofers			19	19	2.87
Drawers		5	13	18	2.72

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
GEORGIA—concluded.					
Drawers-in			10	10	1.51
Engineer	1			1	.15
Filling hands			3	3	.45
Firemen	2			2	.30
Folders	3			3	.45
Laborers	3		33	35	5.30
Machinists	3			3	.45
Others	5		3	8	1.21
Overseers	7			7	1.05
Painter	1			1	.15
Pickers			8	8	1.21
Railway hand	1			1	.15
Rovers			4	4	.60
Second hands	6			6	.91
Section hands	17			17	2.56
Slashers	3			3	.45
Spinners, mule	3			3	1.21
Spinners, other			71	71	10.73
Spoolers			31	31	4.68
Sweepers			16	16	2.43
Teamster	1			1	.15
Warpers	3	2		5	.76
Watchmen	6			6	.91
Weavers	71	158		229	34.59
All others	47	38	31	116	17.53
Total	190	203	260	653	100.00
GERMANY.					
Carders	23			23	.95
Card grinders	8			8	.33
Doffers			47	47	1.95
Dyers	182			182	7.53
Firemen	27			27	1.13
Folders	24			24	.99
Laborers	17			17	.70
Others	2			2	.08
Packers	8			8	.33
Pickers	13			13	.54
Rovers	4		54	58	2.40
Scrubbers		3		3	.13
Spare hands			3	3	.08
Speeders		17		17	.70
Spinners, mule	26			26	1.08
Spinners, other		15	34	49	1.61
Warpers		18		18	.75
Watchmen	16			16	.68
Weavers		1,067		1,067	44.16
All others	546	24	349	919	37.81
Total	806	1,144	376	2,416	100.00
GREAT BRITAIN.					
Beamers	4			4	.35
Bobbin boys			4	4	.35
Carders	24			24	2.08
Card grinders	9			9	.78
Cloth-room hands	1		7	8	.69
Doffers			9	9	.78
Drawers		26		26	2.12
Drawers-in	13			13	1.13
Engineers	6			6	.53
Firemen	3			3	.26
Laborers	15			15	1.30

SUMMARY OF EMPLOYÉS, WITH PER CENT.—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
GREAT BRITAIN—concluded.					
Lappers.....	9	12		21	1.51
Machinists.....	1			1	.09
Others.....	4			4	.35
Overseers.....	14			14	1.21
Packers.....	6			6	.52
Railway hands.....			2	2	.17
Revers.....	25	102		127	11.00
Stubbers.....		22		22	2.77
Speeders.....		29	23	52	4.50
Spinners, male.....	172			172	14.89
Spinners, other.....		6	27	33	2.85
Twisters.....	8			8	.69
Weavers.....		152		152	12.16
All others.....	149	62	189	400	34.62
Total.....	462	431	261	1,155	100.00
ITALY.					
Carders.....	22			22	2.06
Card grinders.....	9			9	.86
Drawers.....		27	12	40	2.82
Engineers.....	5			5	.48
Firemen.....	9			9	.86
Laborers.....	52			52	4.97
Loom fixer.....	1			1	.10
Others.....	12			12	1.24
Overseers.....	6	10		16	1.52
Reclers.....		200		200	19.10
Spinners, male.....	22			22	2.06
Spinners, other.....			44	44	4.20
Spoolers.....			140	140	13.27
Sweepers.....		7	4	11	1.05
Twisters.....	6	79		85	8.11
Watchmen.....	2			2	.19
All others.....	187	158	16	356	34.00
Total.....	354	476	217	1,047	100.00
MADRID.					
Back boys.....			79	79	2.27
Beamers.....	22	5		27	.81
Blacksmiths.....	4			4	.12
Bobbin boys.....			17	17	.51
Card grinders.....	28			28	.84
Card strippers.....	20		27	47	1.40
Cloth-room hands.....	4	4		8	.22
Doffers.....			127	127	4.10
Drawers.....	4	51	22	77	2.30
Drawers-in.....		6		6	.18
Dyers.....	27			27	1.10
Filling hands.....	3		12	16	.48
Firemen.....	4			4	.12
Folders.....	3			3	.09
Inspectors.....		54		54	1.62
Laborers.....	121			121	3.62
Lappers.....			2	2	.06
Machinists.....	22			22	.68
Others.....	22		12	45	1.35
Overseers.....	19			19	.57
Packer.....	1			1	.03
Painters.....	7			7	.21
Pickers.....	27		15	42	1.26
Quillers.....			22	22	.69
Railway hands.....			6	6	.18

SUMMARY OF EMPLOYÉS, WITH PER CENT.—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
MAINE—concluded.					
Reelers	5		1	6	.18
Rovers		11	33	44	.31
Scrubbers	8	4	30	37	.11
Second hands	39	57		96	2.86
Section hands	100			100	3.09
Slashers	13			13	.39
Slubbers		19	2	21	.62
Spare hands	3	2	29	34	1.02
Speeders		9		9	.27
Spinners, mule	59			59	1.77
Spinners, other		86	178	264	7.91
Spoolers		132		132	3.95
Sweepers			51	51	1.53
Teamsters	8			8	.24
Twisters	3	2	5	10	.30
Warpers	14	16		30	.90
Watchmen	15			15	.45
Weavers	781	568		1,299	38.99
All others	135	60	84	279	8.36
Total	1,486	1,086	767	3,339	100.00
MARYLAND.					
Beamers	14			14	1.25
Blacksmith	1			1	.09
Bobbin boys			6	6	.54
Carders	36	32		68	6.06
Card grinders	10			10	.89
Doffers			55	55	4.82
Drawers		13		13	1.16
Engineers	3			3	.27
Filing hands			23	23	2.06
Fireman	1			1	.09
Folder			1	1	.09
Laborers	25			25	2.24
Loom fixers	14			14	1.25
Machinist	1			1	.09
Ollers			10	10	.89
Overseers	20			20	1.79
Packers	20		2	22	1.97
Pickers	17			17	1.53
Railway hands			6	6	.54
Rover			1	1	.09
Second hands	3			3	.27
Slubbers		18		18	1.61
Spare hands			9	9	.81
Speeders		34	2	36	3.22
Spinners, other than mule		162	32	194	17.35
Spoolers		56		56	5.09
Sweepers			17	17	1.53
Twisters		28	11	39	3.49
Warpers	15			15	1.34
Watchmen	3			3	.27
Weavers	14	279		293	26.21
All others	35	28	61	124	11.09
Total	232	650	286	1,118	100.00
MASSACHUSETTS.					
Back boys			137	137	1.94
Beamers		8		8	.11
Blacksmiths	4			4	.06
Carders	87	86		173	2.46
Card grinders	58			58	.82

SUMMARY OF EMPLOYÉS, WITH PER CENT.—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
MASSACHUSETTS—concluded.					
Card strippers	58	6		64	.91
Cloth-room hands	16	11		27	.38
Doffers			230	230	3.26
Drawers		105	47	152	2.16
Drawers-in		55		55	.78
Dyers	43			43	.61
Engineers	11			11	.16
Filling hands	20		3	23	.33
Firemen	18			18	.26
Folders	4		2	6	.09
Inspectors	2	11		13	.18
Laborers	127			127	1.80
Lappers	2			2	.03
Loom fixers	13			13	.17
Machinists	43			43	.61
Oilers	70		18	88	1.25
Oversizers	68			68	.97
Packers			3	3	.04
Painters	19			19	.27
Pickers	18			18	.26
Railway hands			12	12	.17
Reelers		2		2	.03
Rovers			50	50	.71
Scrubbers		40		40	.57
Second hands	94			94	1.34
Section hands	186	4		190	2.69
Slashers	32			32	.45
Slubbers		32		32	.45
Spare hands	8	13	14	35	.50
Speeders	2	168		168	2.33
Spinners, mule	274			274	3.89
Spinners, other		389	220	609	8.64
Spoolers	3	329	34	366	5.19
Sweepers		13	11	24	.34
Teamsters	10			10	.14
Twisters	2	50		52	.74
Warpers	15	44		59	.84
Watchmen	31			31	.43
Weavers	391	2,006		2,397	34.01
All others	321	701	196	1,218	17.28
Total	2,000	4,071	977	7,048	100.00
NEW HAMPSHIRE.					
Back boys			29	29	.81
Carders	47	198		245	6.66
Card grinders	13			13	.36
Card strippers	11			11	.31
Cloth-room hands	35	39		74	2.05
Doffers			43	43	1.19
Drawers	3	10		13	.36
Filling hand	1			1	.03
Inspector	1			1	.03
Laborers	31		1	32	.89
Lappers	4			4	.11
Oilers	8			8	.22
Oversizers	36			36	1.00
Pickers	12			12	.33
Railway hand			1	1	.03
Rovers	14	2		16	.44
Scrubbers		30		30	.85
Second hands	51			51	1.42
Section hands	13			13	.36
Slashers	7			7	.19
Slubbers	3	8		11	.30

SUMMARY OF EMPLOYÉS, WITH PER CNT.—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 235, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW HAMPSHIRE—concluded.					
Spare hands	7	1		8	.22
Speeders	8			8	.22
Spinners, mule	32			32	.89
Spinners, other		327	439	766	21.25
Spoolers		116		116	3.22
Sweepers			9	9	.25
Twisters			53	53	1.47
Warpers		13		13	.36
Weavers	241	1,500		1,741	48.29
All others	45	141	43	229	6.25
Total	322	2,385	618	3,605	100.00
NEW JERSEY.					
Drawers		8		8	2.28
Engineer	1			1	.41
Fireman	1			1	.41
Loom fixers	6			6	2.46
Machinists	3			3	1.22
Pickers	3			3	1.22
Speeders		20		20	8.19
Spinners, mule	14			14	5.74
Spinners, other			30	30	12.29
Weavers		180		180	58.28
All others	8		20	28	11.48
Total	36	158	50	244	100.00
NEW YORK.					
Back boys			149	149	2.22
Beamers	2			2	.03
Blacksmiths	2			2	.03
Bobbin boys			99	99	1.48
Carders	6	349		355	5.32
Card grinders	31			31	.46
Card strippers	28			28	.43
Doffers			86	86	1.29
Drawers		17	163	180	2.70
Drawers-in		11	5	16	.24
Engineers	6			6	.09
Filling hands			2	2	.03
Forgemen	10			10	.15
Folders	6		22	28	.42
Inspectors	2	1		3	.05
Laborers	111			111	1.68
Lappers			20	20	.30
Loom fixers	28			28	.39
Machinists	28			28	.42
Oilers	5		1	6	.09
Overseers	51			51	.76
Packers	3			3	.05
Painters	13			13	.20
Pickers	20		12	32	.48
Rovers	2		153	155	2.77
Second hands	82		2	84	1.26
Slashers	49		1	50	.75
Slubbers	78	9	26	123	1.84
Spare hands	3		3	6	.09
Speeders		52	214	266	3.99
Spinners, mule	157			157	2.35
Spinners, other	403	244	1,108	1,755	26.39
Spoolers	8	8	147	163	2.45
Sweepers			10	10	.15
Teamsters	20			20	.30

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Percent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW YORK—concluded.					
Twisters	12		6	18	.27
Warpers		14	88	102	1.53
Watchmen	21			21	.23
Weavers	235	1,169	170	1,574	23.59
All others	195	303	353	851	12.75
Total	1,615	2,177	2,890	6,672	100.00
NORTH CAROLINA.					
Beamers	10			10	1.03
Carders	18			18	1.85
Card grinders	10			10	1.03
Doffers			60	60	6.17
Drawers		9	3	12	1.23
Drawers-in	6			6	.61
Dyers	17			17	1.75
Engineers	5			5	.51
Filling hands			5	5	.51
Firemen	4			4	.41
Folder	1			1	.10
Laborers	2			2	.20
Lappers	3			3	.30
Loom fixers	16			16	1.65
Machinist	1			1	.10
Others	3		9	12	1.23
Overseers	23			23	2.37
Packers	9		1	10	1.03
Pickers	11		2	13	1.34
Quillers			32	32	3.29
Railway hands			4	4	.41
Reelers		29		29	2.99
Rover	1			1	.10
Second hands	3			3	.30
Slashers	3			3	.30
Slubbers		19		19	1.98
Spare hands		4		4	.41
Speeders		41		41	4.22
Spinners, other than mule			162	162	16.70
Spoolers		50		50	5.15
Sweepers			15	15	1.54
Twisters			14	14	1.44
Warpers	11		12	23	2.37
Watchmen	6			6	.61
Weavers	100	208		308	31.70
All others	12	11	7	30	3.09
Total	275	371	326	972	100.00
PENNSYLVANIA.					
Beamers	12			12	3.02
Card grinders	2			2	.50
Doffers			19	19	4.79
Drawers			2	2	.50
Dyers	10			10	2.52
Engineers	2			2	.50
Others			8	8	.76
Overseers	15			15	3.78
Packers	2			2	.50
Pickers	2			2	.50
Reelers		12		12	3.02
Slubbers		2		2	.50
Spare hands			5	5	1.26
Speeders		9		9	2.27
Spinners, other than mule		28		28	7.05

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

COTTON GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employés.				Percent of number of employés in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
PENNYSYLVANIA—concluded.					
Spoolers.....		15		15	2.78
Sweepers.....			2	2	.50
Warpers.....	5			5	1.27
Watchmen.....	4			4	1.01
Weavers.....	40	184		174	43.83
All others.....	50	2	20	72	18.14
Total.....	144	202	51	397	100.00
SOUTH CAROLINA.					
Carders.....	42			42	14.28
Cloth-room hands.....	7			7	2.40
Laborers.....	15			15	5.14
Spinners, other than mule.....		80		80	27.40
Watchmen.....	5			5	1.71
Weavers.....	91			91	31.17
All others.....	8	44		52	17.80
Total.....	168	124		292	100.00
VERMONT.					
Card grinders.....	2			2	.72
Card strippers.....	2			2	.72
Doffers.....			15	15	5.39
Drawers-in.....		6		6	2.15
Engineer.....	1			1	.36
Fireman.....	1			1	.36
Folder.....	1			1	.36
Inspector.....	1			1	.36
Loom fixers.....	5			5	1.78
Oiler.....	1			1	.36
Overseers.....	5			5	1.78
Pickers.....	4			4	1.43
Second hands.....	4			4	1.43
Slashers.....	2			2	.72
Slubbers.....		6		6	2.15
Spare hands.....		6		6	2.15
Speeders.....	14			14	5.02
Spinners, mule.....	12			12	4.30
Spinners, other.....			25	25	8.96
Sweepers.....			6	6	2.15
Teamsters.....	2			2	.72
Weavers.....	65	50		115	41.22
All others.....	7	4	32	43	15.41
Total.....	129	72	78	279	100.00
VIRGINIA.					
Beamers.....	3			3	.50
Carders.....	7			7	1.17
Card grinders.....	7			7	1.17
Doffers.....			32	32	5.36
Drawers.....		8		8	1.34
Drawers-in.....		2		2	.33
Dyers.....	7			7	1.17
Engineer.....	1			1	.17
Filling hand.....	1			1	.17
Firemen.....	3			3	.50
Folder.....	1			1	.17
Inspectors.....			2	2	.33
Laborers.....	5			5	.83
Loom fixers.....	5			5	.88
Machinists.....	5			5	.83

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

COTTON GOODS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Percent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
VIRGINIA—concluded.					
Oilers.....			4	4	.67
Overseers.....	22			22	3.68
Packers.....	8	2	3	13	2.18
Pickers.....	8		2	10	1.62
Quillers.....			10	10	1.68
Railway hands.....	1	1	3	5	.83
Reelers.....		2		2	.33
Second hands.....	5			5	.83
Slasher.....	1			1	.17
Slubbers.....		7		11	1.85
Spare hands.....	1	2	7	10	1.68
Speeders.....		13	13	26	4.35
Spinners, other than mule.....			92	92	15.41
Spoolers.....		17	13	30	5.04
Sweepers.....			8	8	1.35
Teamsters.....	2			2	.34
Warpers.....		5	8	13	2.18
Watchmen.....	4			4	.67
Weavers.....	25	201		226	37.86
All others.....	2	6	6	14	2.35
Total.....	124	266	207	597	100.00

FOOD PREPARATIONS.

CALIFORNIA.					
Engineers	18			18	16.36
Firemen	3			3	2.73
Laborers	9			9	8.18
Millers	5			5	4.55
Packers	2			2	1.82
Teamsters	6			6	5.45
All others	65		2	67	60.91
Total	108		2	110	100.00
ILLINOIS.					
Cleaners	6			6	2.98
Engineers	19			19	9.45
Firemen	10			10	4.98
Laborers	66			66	32.83
Millers	31			31	15.42
Packers	24			24	11.94
Sweepers	14			14	6.97
Teamsters	17			17	8.46
All others	14			14	6.97
Total	201			201	100.00
INDIANA.					
Cleaners	2			2	.31
Engineers	3			3	.46
Laborers	424			424	65.13
Millers	3			3	.46
Packers	2			2	.31
Sweepers	2			2	.31
Teamsters	2			2	.31
All others	121		92	213	32.71
Total	559		92	651	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

FOOD PREPARATIONS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 293, whence derived.

States and occupations.	Number of employes.				Percent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
MINNESOTA.					
Laborers	108	.....	.....	108	31.49
Millers	83	.....	.....	83	24.30
Packers	28	.....	.....	28	8.16
Sweepers	50	.....	.....	50	14.58
All others	74	.....	.....	74	21.87
Total	343	.....	.....	343	100.00
MISSOURI.					
Cleaners	3	.....	.....	3	1.67
Engineers	7	.....	.....	7	5.83
Firemen	6	.....	.....	6	5.00
Laborers	77	.....	.....	77	64.17
Millers	12	.....	.....	12	10.00
Packers	4	.....	.....	4	3.33
Sweepers	2	.....	.....	2	1.67
All others	10	.....	.....	10	8.33
Total	120	.....	.....	120	100.00
NEW HAMPSHIRE.					
Cleaner	1	.....	.....	1	11.11
Millers	5	.....	.....	5	55.56
Packers	2	.....	.....	2	22.22
Sweeper	1	.....	.....	1	11.11
All others .....	.....	.....	.....	.....	.....
Total	9	.....	.....	9	100.00
OHIO.					
Coopers	44	.....	.....	44	22.34
Engineers	11	.....	.....	11	5.58
Firemen	14	.....	.....	14	7.11
Laborers	15	.....	.....	15	7.61
Millers	12	.....	.....	12	6.09
Packers	8	.....	.....	8	4.06
Sweepers	2	.....	.....	2	1.02
Teamsters	4	.....	.....	4	2.03
All others	87	.....	.....	87	44.16
Total	197	.....	.....	197	100.00
WEST VIRGINIA.					
Engineer	1	.....	.....	1	16.67
Laborer	1	.....	.....	1	16.67
Millers	2	.....	.....	2	33.34
Packer	1	.....	.....	1	16.66
All others	1	.....	.....	1	16.66
Total	6	.....	.....	6	100.00

FURNITURE.

INDIANA.					
Cabinetmakers	143	.....	.....	143	25.28
Engineers	2	.....	.....	2	.35
Foremen	4	.....	.....	4	.71
Laborers	48	.....	.....	48	8.48

SUMMARY OF ALL EMPLOYEES, WITH PER CENT.—Continued.

FURNITURE—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employée.				Percent of number of employée in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
INDIANA—concluded.					
Machine men.....	187	.....	58	245	43.29
Upholsterers.....	5	.....	.....	5	.88
All others.....	119	.....	.....	119	21.03
Total.....	506	.....	58	566	100.00
KENTUCKY.					
Cabinet makers.....	27	.....	.....	27	23.08
Carvers.....	6	.....	.....	6	5.12
Laborers.....	8	.....	.....	8	6.84
Machine men.....	32	.....	.....	32	27.25
Upholsterers.....	5	.....	.....	5	4.27
All others.....	39	.....	.....	39	33.38
Total.....	117	.....	.....	117	100.00
MICHIGAN.					
Cabinet makers.....	118	.....	6	124	15.98
Carvers.....	31	.....	6	37	4.77
Engineers.....	5	.....	.....	5	.64
Foremen.....	18	.....	.....	18	2.32
Laborers.....	63	.....	1	64	8.25
Machine men.....	106	.....	18	124	23.71
Upholsterers.....	19	.....	.....	19	2.45
All others.....	237	.....	38	275	41.88
Total.....	707	.....	69	776	100.00

GLASS.

CALIFORNIA.					
Blacksmiths.....	3			3	2.03
Blowers and finishers, bottle and chimney (blowers).....	28			28	18.92
Engineer.....	1			1	.67
Gatherers.....			14	14	9.46
Laborers.....	15			15	10.14
Mixers.....	3			3	2.03
Packers.....	3			3	5.40
Pot makers.....	2			2	1.35
Teamsters.....	3			3	2.03
Teasers.....	3			3	2.03
All others.....	20		48	68	45.94
Total.....	86		62	148	100.00
ILLINOIS.					
Blowers, window-glass.....	16			16	38.10
Cutters.....	6			6	14.29
Flatteners.....	4			4	9.52
Gatherers.....	16			16	38.09
All others.....					
Total.....	42			42	100.00
KENTUCKY.					
Blacksmith.....	1			1	1.45
Blowers and finishers, bottle and chimney (blowers).....	20			20	28.98

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

GLASS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
KENTUCKY—concluded.					
Foreman	1			1	1.45
Laborers	21			21	30.43
Mixer	1			1	1.45
Packers	1		2	3	4.35
Teamster	1			1	1.45
Teasers	2			2	2.90
Watchman	1			1	1.45
All others	1		17	18	26.00
Total	50		19	69	100.00
NEW JERSEY.					
Blacksmiths	7			7	.88
Blowers, window-glass	32			32	4.02
Blowers and finishers, bottle and chimney (blowers)	207			207	25.97
Cutters	20			20	2.51
Engineers	8			8	1.00
Flatteners	10			10	1.25
Foreman	1			1	.12
Gatherers	40		26	66	8.28
Laborers	36			36	4.51
Master shearers	29			29	3.64
Mixers	11			11	1.36
Packers	13			13	1.63
Pot makers	3			3	.38
Teamsters	18			18	2.26
All others	54		282	336	42.16
Total	489		308	797	100.00
OHIO.					
Blacksmiths	3			3	.52
Blowers, window-glass	37			37	6.45
Blowers and finishers, bottle and chimney	23			23	4.01
Cutters	15			15	2.61
Engineer	1			1	.18
Fillers-in	2			2	.35
Flatteners	9			9	1.57
Gatherers	71		8	79	13.76
Laborers	46			46	8.01
Leersmen	4			4	.70
Master teasers	2			2	.35
Mixers	5			5	.87
Mould makers	7			7	1.22
Packers	10			10	1.74
Pressers	29			29	5.05
Teasers	9			9	1.57
Watchman	1			1	.17
All others	91		201	292	50.87
Total	365		209	574	100.00
PENNSYLVANIA.					
Blacksmiths	11			11	.58
Blowers, window-glass	27			27	1.22
Blowers and finishers, bottle and chimney	403			403	18.17
Cutters	11			11	.50
Engineers	7			7	.32
Fillers-in	13			13	.59
Flatteners	8			8	.36
Foremen	9			9	.44
Gatherers	173		29	202	9.11

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

GLASS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
PENNSYLVANIA—concluded.					
Laborers.....	435			435	19.61
Leermnen.....	17			17	.76
Master teasers.....	3			3	.13
Mixers.....	28			28	1.26
Mould makers.....	23			23	1.04
Packers.....	74			74	3.34
Pot makers.....	8			8	.36
Pressers.....	41			41	1.85
Teamsters.....	18			18	.58
Teasers.....	39			39	1.76
Watchmen.....	12			12	.54
All others.....	145	27	662	834	37.00
Total.....	1,500	27	661	2,218	100.00
WEST VIRGINIA.					
Blacksmith.....	1			1	1.16
Blowers and finishers, bottle and chimney (blowers).....	18			18	20.98
Foreman.....	1			1	1.16
Leermnen.....	2			2	2.33
Mixers.....	2			2	2.33
Packers.....	5			5	5.81
Teamsters.....	2			2	2.33
Teasers.....	2			2	2.33
Watchman.....	1			1	1.16
All others.....	14		38	52	60.46
Total.....	48		38	86	100.00

LEATHER.

CALIFORNIA.					
Beasmnen	30			30	19.48
Finisher	1			1	.65
Laborers	37			37	24.03
All others	34		2	36	55.84
Total	152		2	154	100.00
DELAWARE.					
Beasmnen	38			38	9.50
Finishers	184		46	230	57.50
Laborers	37			37	9.25
Shavers	16		1	17	4.25
Tanners	30			30	7.50
All others	32	14	2	48	12.00
Total	337	14	49	400	100.00
MASSACHUSETTS.					
Beasmnen	10			10	8.00
Finishers	40			40	32.00
Tanners	10			10	8.00
All others	65			65	52.00
Total	125			125	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

LEATHER—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 235, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes of each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
PENNSYLVANIA.					
Beamsmen	45	.....	.....	45	18.05
Finishers	108	.....	.....	108	44.00
Laborers	24	.....	.....	24	8.89
Shavers	17	.....	.....	17	6.80
Tanners	27	.....	.....	27	10.00
All others	34	14	1	49	18.15
Total	255	14	1	270	100.00

LIQUORS AND BEVERAGES.

ILLINOIS.					
Brewers and maltsters	64			64	24.05
Engineers	9			9	3.38
Firemen	22			22	8.27
Foremen	7			7	2.63
Teamsters	20			20	7.52
All others	144			144	54.14
Total	266			266	100.00
OHIO.					
Brewers and maltsters	72			72	43.04
Engineers	4			4	2.42
Firemen	4			4	2.42
Foreman	1			1	.61
Teamsters	45			45	27.27
All others	39			39	23.64
Total	165			165	100.00
PENNSYLVANIA.					
Brewers and maltsters	12			12	11.77
Foreman	1			1	.96
Teamsters	4			4	3.92
All others	85			85	82.33
Total	102			102	100.00

MACHINES AND MACHINERY.

CALIFORNIA.					
Blacksmiths	16			16	2.89
Boiler makers	32			32	5.79
Carpenters	7			7	1.25
Machinists	68			68	12.27
Moulders	48			48	8.66
All others	320		63	383	66.13
Total	491		63	554	100.00
ILLINOIS.					
All others	97		20	117	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

MACHINES AND MACHINERY—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 255, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
INDIANA.					
Blacksmiths	29			29	3.86
Boiler makers	114			114	15.16
Carpenters	7			7	.93
Machinists	273		1	274	40.73
Moulders	43			43	5.72
All others	167		18	185	24.60
Total	733		19	752	100.00
KENTUCKY.					
Blacksmiths	6			6	5.00
Machinists	43			43	35.83
Moulders	10			10	8.33
All others	55		6	61	50.84
Total	114		6	120	100.00
MAINE.					
Blacksmiths	2			2	3.45
Machinists	10			10	17.24
Moulders	18			18	31.03
All others	23		5	28	48.28
Total	53		5	58	100.00
MASSACHUSETTS.					
Machinists	170			170	51.38
All others	161			161	48.64
Total	331			331	100.00
NEW JERSEY.					
Blacksmiths	3			3	1.91
Machinists	65			65	41.40
Moulders	30			30	19.11
All others	59			59	37.58
Total	157			157	100.00
PENNSYLVANIA.					
Machinists	275			275	58.39
All others	196		90	196	41.61
Total	331		90	471	100.00

METALS AND METALLIC GOODS:

ALABAMA.					
Cindermen.....	10			10	10.21
Engineers.....	2			2	2.04
Fillers (top).....	4			4	4.08
Firemen.....	5			5	5.10
Foremen.....	4			4	4.08
Teamsters.....	2			2	2.04
All others.....	71			71	72.45
Total.....	98			98	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

METALS AND METALLIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employés.				Per cent. of number of employés in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
BELGIUM.					
Carpenters	4			4	.47
Engineers	5			5	.59
Fillers (top, bottom)	12			12	1.41
Firemen	11			11	1.29
Foremen	7			7	.82
Heaters	6			6	.70
Heaters' helpers	12			12	1.40
Hookers-up	8			8	.94
Keepers	6			6	.70
Keepers' helpers	18			18	2.11
Laborers	65			65	7.61
Machinists	9			9	1.05
Masons	2			2	.23
Rollers (rollers; roller, chief, second, third, fourth)	12			12	1.41
Rollers' helpers	8			8	.94
Shearman	1			1	.12
Straighteners	5			5	.58
All others	511	83	119	663	77.63
Total	702	83	119	854	100.00
CALIFORNIA.					
Carpenters	11			11	2.54
Engineer	1			1	.23
Foreman	1			1	.23
Machinists	79			79	18.25
All others	341			341	78.75
Total	433			433	100.00
DELAWARE.					
Catchers	6			6	10.00
Drag-outs	2			2	3.33
Engineers	2			2	3.33
Foreman	1			1	1.67
Heaters	2			2	3.33
Heaters' helpers	2			2	3.33
Hookers-up	2			2	3.33
Laborers	12			12	20.00
Puddlers	6			6	10.00
Puddlers' helpers	6			6	10.00
Rollers	8			8	13.34
All others	11			11	18.34
Total	60			60	100.00
GREAT BRITAIN.					
Bricklayers (bricklayers, masons)	10			10	.87
Carpenters	2			2	.17
Catchers (muck, rail)	15			15	1.30
Drag-outs	2			2	.17
Engineers	24			24	2.08
Fillers (fillers; fillers, bottom, top)	74			74	6.41
Firemen	10			10	.87
Foremen	16			16	1.38
Keepers	10			10	.87
Keepers' helpers	10			10	.87
Laborers	113			113	9.79
Machinists	2			2	.17
Millwrights	10			10	.87
Pilers (iron)	7			7	.61
Puddlers	240			240	20.80
Rollers (forge, rail)	8			8	.26

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

METALS AND METALLIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
GREAT BRITAIN—concluded.					
Roughers (forge, rail)	15			15	1.80
Straighteners	10			10	.87
Wheelers (coal, fettling, metal, slag)	46			46	3.86
All others	501	10	24	535	44.86
Total	1,120	10	24	1,154	100.00
ILLINOIS.					
Bricklayers (bricklayers, masons)	2			2	.23
Carpenters	3			3	.43
Catchers (catchers; catchers, plate, slab)	8			8	1.16
Engineers	10			10	1.45
Firemen	10			10	1.43
Foremen	3			3	.43
Heaters (heaters; heaters, old rail, plate)	20			20	2.89
Heaters' helpers (heaters' helpers; heaters' helpers, old rail, plate)	24			24	3.47
Hookers-up (hookers-up; hookers-up, plate, slab)	14			14	2.02
Laborers	171			171	24.71
Machinists	16			16	2.31
Pattern maker	1			1	.14
Fillers (old rail)	4			4	.58
Fuddlers	6			6	.86
Fuddlers' helpers	10			10	1.45
Rollers (rollers; rollers, plate, slab)	11			11	1.59
Rollers' helpers (plate)	4			4	.58
Roughers	11			11	1.59
Shearmen (shearmen; shearmen, plate)	7			7	1.01
Teamsters	3			3	.43
All others	262		102	354	51.16
Total	590		102	692	100.00
INDIANA.					
Carpenters	5			5	1.31
Catchers	2			2	.52
Engineers	9			9	2.26
Fillers	10			10	2.62
Firemen	6			6	1.57
Hammermen	2			2	.62
Heaters	12			12	3.14
Heaters' helpers	9			9	2.36
Keepers	2			2	.52
Keepers' helpers	2			2	.52
Laborers	153			153	40.05
Machinists	19			19	4.97
Masons	2			2	.52
Pattern makers	2			2	.52
Fuddlers	32			32	8.38
Fuddlers' helpers	32			32	8.38
Rollers (bar, guide, muck)	3			3	.79
Rollers' helpers	16			16	4.19
Roughers	6			6	1.57
Shearmen	4			4	1.05
Teamsters	5			5	1.31
All others	49			49	12.83
Total	382			382	100.00
KENTUCKY.					
Bricklayer	1			1	.16
Carpenter	1			1	.16
Catchers (bar, plate, sheet)	3			3	.48

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

METALS AND METALLIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state
	Adult male.	Adult female.	Children and youth.	Total.	
KENTUCKY—concluded.					
Engineers.....	6			6	.96
Firemen.....	2			2	.48
Hammermen.....	4			4	.64
Heaters (bar, bloom and scrap, 8-inch, 10-inch, plate, sheet, slot).....	13			13	2.09
Heaters' helpers.....	3			3	.48
Laborers.....	142			142	22.83
Machinist.....	1			1	.16
Millwright.....	1			1	.16
Pattern maker.....	1			1	.16
Pilers (plate).....	4			4	.64
Puddlers.....	83			83	13.35
Puddlers' helpers.....	84			84	13.51
Rollers (bar, muck, plate, sheet, 8-inch, 10-inch).....	13			13	2.09
Rollers' helpers (rollers' helpers; rollers' helpers, bar, muck, plate, sheet, 8-inch).....	44			44	7.08
Roughers (bar, plate, sheet, 8-inch, 10-inch).....	11			11	1.77
Shearmen (shearmen; shearmen, plate).....	13			13	2.09
Straighteners.....	5			5	.80
Teamster (cart driver).....	1			1	.16
All others.....	148		87	185	29.75
Total.....	585		87	622	100.00
MARYLAND.					
Breakers (limestone, ore).....	7			7	2.99
Carpenter.....	1			1	.43
Cindermen.....	4			4	1.71
Engineers.....	8			8	3.42
Filers.....	21			21	8.97
Firemen.....	2			2	.85
Keepers.....	9			9	3.85
Keepers' helpers.....	9			9	3.85
Laborers.....	102			102	43.59
Machinist.....	1			1	.43
Teamsters (teamsters, cart drivers).....	11			11	4.70
All others.....	59			59	25.21
Total.....	234			234	100.00
MASSACHUSETTS.					
Carpenters.....	5			5	5.56
Foreman.....	1			1	1.11
Laborers.....	18			18	20.00
Machinists.....	40			40	44.44
Pattern makers.....	2			2	2.22
All others.....	24			24	26.67
Total.....	90			90	100.00
MISSOURI.					
Carpenters.....	15			15	1.46
Engineers.....	21			21	2.04
Foremen.....	10			10	.97
Laborers.....	412			412	40.04
Machinists.....	3			3	.29
All others.....	568			568	55.20
Total.....	1,029			1,029	100.00
NEW HAMPSHIRE.					
Laborers.....	100			100	53.48
Machinists.....	5			5	2.67

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

METALS AND METALLIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW HAMPSHIRE—concluded.					
Pattern makers	7			7	3.74
All others	75			75	40.11
Total	187			187	100.00
NEW JERSEY.					
Laborers	12			12	10.81
Machinists	4			4	3.60
Pattern makers	4			4	3.60
Teamsters	9			9	8.11
All others	82			82	78.88
Total	111			111	100.00
NEW YORK.					
Breakers (ore)	6			6	.15
Carpenters	8			8	.20
Catchers	28			28	.69
Cindermen	12			12	.30
Drag-outs	8			8	.20
Engineers	35			35	.87
Fillers (bottom, top)	38			38	.94
Foremen	27			27	.67
Hammermen	7			7	.18
Heaters	42			42	1.04
Heaters' helpers	42			42	1.04
Hookers-up (hookers-up; hookers-up, tumble)	37			37	.92
Keepers	6			6	.15
Keepers' helpers	8			8	.20
Laborers	1,459			1,459	36.15
Machinists	283			283	7.01
Masons	4			4	.10
Millwrights	2			2	.05
Pilers (iron)	6			6	.15
Puddlers	185			185	4.59
Puddlers' helpers	168			168	4.12
Rollers (rollers; rollers, muck)	43			43	1.07
Rollers' helpers	9			9	.22
Roughers	26			26	.65
Shearmen	10			10	.25
Straighteners (straighteners; straighteners, cold-bar)	26			26	.65
Teamsters	5			5	.12
Wheelers (coal, coke, limestone)	37			37	.92
All others	1,214		255	1,469	36.40
Total	3,781		255	4,036	100.00
OHIO.					
Breakers (iron, limestone, ore)	39			39	.73
Bricklayers (bricklayers, masons)	5			5	.09
Carpenters	21			21	.39
Catchers (catchers; catchers, bar, butt, muck, plate, 8-inch, 9-inch)	46			46	.86
Cindermen	50			50	.94
Drag-outs (drag-outs; drag-outs, butt, muck, plate)	32			32	.60
Engineers	118			118	2.22
Fillers (fillers; fillers, bottom, top)	175			175	3.28
Firemen	119			119	2.23
Foremen and overseers	49			49	.92
Hammermen	6			6	.11

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

METALS AND METALLIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 296, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
OHIO—concluded.					
Heaters (heaters; heaters, bar, butt, plate, sheet, 8-inch, 9-inch)	a80			80	1.50
Heaters' helpers (heaters' helpers; heaters' helpers, bar, butt, plate, sheet, 8-inch)	140			140	2.62
Hookers-up (hookers-up; hookers-up, bar, butt, muck, plate)	50			50	.94
Keepers	20			20	.38
Keepers' helpers	32		2	34	.64
Labors	1,161			1,161	21.78
Machinists	39			39	.73
Millwrights	3			3	.06
Pilers (iron, plate)	b18			18	.34
Puddlers	108			108	2.03
Puddlers' helpers	150			150	2.81
Rollers (rollers; rollers, bar, bloom, butt, hoop, guide, muck, plate, sheet, rod, 8-inch, 9-inch, 18-inch, 22-inch)	c50			50	.94
Rollers' helpers (rollers' helpers; rollers' helpers, bar, muck)	10			10	.19
Roughers (roughers; roughers, bar, plate, 8-inch, 9-inch)	80			80	1.50
Shearmen (shearmen; shearmen, muck, plate)	70			70	1.31
Straighteners (cold-bar, hot-bar, 8-inch, 9-inch)	15			15	.28
Wheelers (ash, coal, iron)	162			162	3.04
Teamsters (teamsters, cart drivers)	22			22	.41
All others	2,199		260	2,459	46.13
Total	5,069		262	5,331	100.00
PENNSYLVANIA.					
Breakers (iron, ore)	18			18	.34
Bricklayers (bricklayers, masons)	61			61	1.15
Carpenters	43			43	.81
Catchers (catchers; catchers, bar, muck, 8-inch, 10-inch)	d22			22	.41
Cindermen	30			30	.56
Drag-outs (drag-outs; drag-outs, bar, 10-inch)	9			9	.17
Engineers	93			93	1.75
Fillers (fillers; fillers, bottom, top)	46			46	.87
Firemen	35			35	.66
Foremen	19			19	.36
Hammermen	40			40	.75
Heaters (heaters; heaters, bar, 8-inch, 10-inch)	e27			27	.51
Heaters' helpers (heaters' helpers; heaters' helpers, bar)	51			51	.96
Hookers-up	2			2	.04
Keepers	6			6	.11
Keepers' helpers	10			10	.19
Labors	1,936		3	1,939	36.48
Machinists	181			181	3.40
Millwrights	3			3	.06
Pattern makers	30			30	.56
Pilers (iron)	12			12	.23
Puddlers	318			318	5.98
Puddlers' helpers	318			318	5.98
Rollers (rollers; rollers, bar, muck, plate, 8-inch, 10-inch)	f17			17	.32

a Not including 7 heaters in establishment 417, wages being indefinite; also 4 heaters in establishment 850.

b Not including 1 plate piler in establishment 419, whose wages, as reported, were inseparably combined with those of his 4 assistants.

c Not including 8 rollers in establishment 417, also 1 roller in establishment 419, wages being indefinite.

d Not including establishment 428. Catchers not reported.

e Not including heaters in establishment 428; number not reported.

f Not including 6 rollers in establishment 433; 5 in establishment 432.

SUMMARY OF ALL EMPLOYEES, WITH PER CENT.—Continued.

METALS AND METALLIC GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 236, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
PENNSYLVANIA—concluded.					
Rollers' helpers	31			31	.58
Roughers (roughers; roughers, bar, muck, 8-inch, 10-inch)	10			10	.19
Shearmen	32			32	.60
Straighteners (straighteners; straighteners, cold bar)	22			22	.41
Teamster (cart driver)	1			1	.02
All others	1,890		10	1,890	85.55
Total	5,908		13	5,916	100.00
TENNESSEE.					
Breakers (ore)	4			4	14.81
Engineers	8			8	11.11
Fillers (bottom, top)	12			12	44.45
Keepers	2			2	7.41
Keepers' helpers	2			2	7.41
All others	4			4	14.81
Total	27			27	100.00
VERMONT.					
Engineers	5			5	2.17
Foremen	13			13	5.48
Laborers	62			62	26.16
Machinists	10			10	4.22
All others	147			147	62.03
Total	237			237	100.00
VIRGINIA.					
Breakers (ore)	4			4	.26
Carpenters	14			14	.92
Catchers (catchers; catchers, guide)	40			40	2.63
Cindermen	14			14	.92
Engineers	7			7	.46
Fillers (fillers; fillers, bottom, top)	66			66	4.34
Firemen	5			5	.33
Foremen	8			8	.53
Heaters (heaters; heaters, bar, guide, plate, 18-inch)	54			54	3.56
Heaters' helpers (heaters' helpers; heaters' helpers, bar, guide, plate)	31			31	2.04
Keepers	6			6	.40
Keepers' helpers	14			14	.92
Laborers	339			339	22.32
Machinists	17			17	1.12
Masons	4			4	.26
Millwrights	3			3	.20
Pattern makers	3			3	.20
Puddlers	124			124	8.16
Puddlers' helpers	204			204	13.43
Rollers (rollers; rollers, bar, muck, guide, plate, 19-inch)	30			30	1.98
Roughers (roughers; roughers, guide, 18-inch)	53			53	3.49
Shearmen	4			4	.27
Wheeler	2			2	.13
Teamsters (cart drivers)	4		2	6	.39
All others	427		40	467	30.74
Total	1,477		42	1,519	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

METALS AND METALLIC GOODS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
WEST VIRGINIA.					
Catchers (plate)	2			2	.58
Engineers	2			2	.58
Heaters	7			7	1.98
Heaters' helpers	7			7	1.98
Hookers-up (plate)	2			2	.58
Laborers	15			15	4.19
Masons	2			2	.58
Puddlers	36			36	10.05
Puddlers' helpers	72			72	20.11
Rollers (muck, plate)	4			4	1.12
Rollers' helpers (muck, plate)	8			8	2.23
Shearman	1			1	.28
All others	175		25	200	55.86
Total	333		25	358	100.00

MUSICAL INSTRUMENTS AND MATERIALS.

MAINE.					
Box-room hands	2			2	5.00
Finishers (finishers, fly finishers)	10			10	25.00
Machinists	8			8	20.00
All others	20			20	50.00
Total	40			40	100.00
NEW HAMPSHIRE.					
Box-room hands (case makers)	5			5	20.83
Finishers (fly finishers)	3			3	12.50
All others	16			16	66.67
Total	24			24	100.00
NEW YORK.					
Bellymen	98			98	5.13
Box-room hands (box-room hands, case makers, carpenters)	167			167	8.72
Finishers (finishers, fly finishers)	152		10	162	8.46
Key makers	59			59	2.08
Machinists	23			23	1.20
All others	1,239	18	149	1,406	73.42
Total	1,788	18	159	1,915	100.00

PAPER.

CALIFORNIA.					
Engineer	1			1	2.86
Foreman	1			1	2.86
All others	33			33	94.28
Total	35			35	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

PAPER—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
DELAWARE.					
Calenderers	6			6	3.17
Engineers	12			12	6.35
Finishers	13			13	6.88
Foremen	3			3	1.59
Laborers	17			17	8.99
Machine tenders	42			42	22.22
Bag-engine tenders	19			19	10.45
All others	36	88	8	77	40.74
Total	148	83	8	189	100.00
MAINE.					
Engineers	9			9	6.61
Finishers	6	1		7	5.14
Foreman	1			1	.74
Laborers	20			20	14.71
Machine tenders	13			13	9.56
All others	44	31	11	86	63.24
Total	93	32	11	136	100.00
MASSACHUSETTS.					
Calenderers	38	12		50	5.35
Engineers	7			7	.75
Finishers	72	28	1	101	10.80
Foremen	12			12	1.28
Laborers	38			38	4.06
Machine tenders	78			78	8.34
Bag-engine tenders	57			57	6.10
Repair hands	21			21	2.25
All others	245	319	7	571	61.07
Total	568	359	8	985	100.00
NEW HAMPSHIRE.					
Finishers	8			8	3.81
Foremen	5			5	2.38
Machine tenders	30			30	14.29
Bag-engine tenders	30			30	14.29
Repair hands	10			10	4.76
All others	91	36		127	60.47
Total	174	36		210	100.00
OREGON.					
Engineers	5			5	11.11
Finishers		5		5	11.11
Laborers	15			15	33.33
Machine tenders	5			5	11.11
All others		10	5	15	33.34
Total	25	15	5	45	100.00
VERMONT.					
Finishers	10			10	4.95
Foremen	4			4	1.98
Machine tenders	35			35	17.33
Bag-engine tenders	48			48	23.76
Repair hands	20			20	9.90
All others	60	25		85	42.68
Total	177	25		202	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

PRINT WORKS.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
MASSACHUSETTS.					
Ageing and steaming hands.....	87			87	5.01
Bleachers.....	29		31	60	8.12
Colorers and dyers.....	100		36	136	18.40
Engravers.....	14			14	1.89
Foremen (overseers).....	35			35	4.74
Printers.....	23			23	3.11
All others.....	251	26	157	434	58.73
Total.....	489	26	234	789	100.00
NEW HAMPSHIRE.					
Ageing and steaming hands.....	25		8	33	7.22
Bleachers.....	30		25	55	12.02
Colorers and dyers.....	37			37	8.10
Engravers.....	4			4	.88
Foreman.....	1			1	.22
Printers.....	14			14	3.06
All others.....	190	59	64	313	68.49
Total.....	301	59	97	457	100.00
NEW JERSEY.					
Bleachers.....	30			30	14.63
Colorers and dyers.....	40			40	19.51
Engravers.....	25			25	12.20
Printers.....	10			10	4.88
All others.....	100			100	48.78
Total.....	205			205	100.00
NEW YORK.					
Bleachers.....	7			7	16.28
Foremen.....	2			2	4.65
All others.....	5	26	3	34	79.07
Total.....	14	26	3	43	100.00
PENNSYLVANIA.					
Engravers.....	19			19	2.51
Foremen.....	30			30	3.84
Printers.....	14			14	1.85
All others.....	293	65	346	704	83.00
Total.....	346	65	346	757	100.00

TOBACCO.

CONNECTICUT.					
Cigar makers (cigar makers, rollers).....	15			15	71.43
Laborer.....	1			1	4.76
Packer.....	1			1	4.76
Strippers.....		4		4	19.05
Total.....	17	4		21	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

TOBACCO—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 285, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
ILLINOIS.					
Bunch breakers		59		59	10.42
Cigar makers (cigar makers, rollers)	118	55		173	30.57
Cutters	10			10	1.77
Dressers	12		3	15	2.65
Engineer	1			1	.17
Foreman	7			7	1.24
Laborers	12			12	2.12
Packers	33	15		48	8.48
Pressmen	17			17	3.00
Strippers		5	168	173	30.57
Wrappers	20			20	3.53
All others	10	14	7	31	5.48
Total	240	148	178	566	100.00
KENTUCKY.					
Cutters	3			3	2.22
Dressers		6		6	4.44
Foremen	3			3	2.22
Laborers	28			28	20.74
Lump makers	2			2	1.48
Pressmen	5			5	3.71
Stemmers		10		10	7.41
Strippers		6	46	52	38.52
Wrappers	2	4		6	4.44
All others	7		13	20	14.82
Total	50	26	59	135	100.00
MICHIGAN.					
Cutters	6			6	3.80
Dressers	12	4		16	10.13
Foremen	5			5	3.16
Laborers	4			4	2.53
Packers	23			23	14.56
Strippers			55	55	34.81
All others	15		34	49	31.01
Total	65	4	89	158	100.00
MISSOURI.					
Cutters	10			10	1.05
Dressers	12			12	1.25
Engineers	2			2	.21
Foremen	7			7	.73
Laborers		35		35	3.66
Lump makers	69			69	7.21
Packers	6	30		36	3.76
Pressmen	80			80	8.36
Stemmers	310			310	32.39
Strippers			30	30	3.13
Wrappers	24			24	2.51
All others	322	20		342	35.74
Total	842	85	30	957	100.00
NEW JERSEY.					
Bunch breakers		20		20	19.42
Cigar makers (cigar makers, rollers)	31	30		61	59.22
Foreman	1			1	.97
Laborers	5			5	4.85
Packers	6			6	5.83

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

TOBACCO—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW JERSEY—concluded.					
Strippers.....			10	10	2.71
All others.....					
Total.....	43	50	10	103	100.00
NEW YORK.					
Cutters.....	12			12	5.31
Dressers.....	2	3		5	2.21
Engineer.....	1			1	.44
Lump makers.....	2	6		8	3.54
Packers.....	5	50		55	24.34
Pressmen.....	5			5	2.21
Stemmers.....		100		100	44.25
All others.....	12		28	40	17.70
Total.....	39	159	28	236	100.00
NORTH CAROLINA.					
Cutters.....	24			24	3.76
Engineer.....	1			1	.16
Foremen.....	21			21	3.29
Laborers.....	36		34	70	10.67
Lump makers.....	53			53	8.15
Packers.....	50		19	69	10.62
Pressmen.....	16			16	2.49
Stemmers.....	2	3	61	66	10.34
Strippers.....			53	53	8.31
Wrappers.....			53	53	8.31
All others.....	92	71	50	213	32.30
Total.....	294	127	217	638	100.00
OHIO.					
Bunch breakers.....	116	176	50	342	30.19
Cigar makers (cigar makers, rollers).....	348	223		570	50.31
Foremen.....	11			11	.97
Laborers.....	7			7	.63
Packers.....	57	2		59	5.21
Strippers.....			126	126	11.12
All others.....	9	1	8	18	1.56
Total.....	548	401	184	1,133	100.00
RHODE ISLAND.					
Cigar makers (cigar makers, rollers).....	14			14	63.63
Laborer.....	1			1	4.55
Packer.....	1			1	4.55
Strippers.....		4		4	18.18
All others.....			2	2	9.09
Total.....	16	4	2	22	100.00
VIRGINIA.					
Cutters.....	25			25	.90
Engineers.....	4			4	.14
Foremen.....	23			23	.83
Laborers.....	215		35	250	9.62
Lump makers.....	326			326	11.77
Packers.....		75		75	2.71
Pressmen.....	167			167	6.63
Stemmers.....		539	333	872	31.46

SUMMARY OF ALL EMPLOYÉES, WITH PER CENT.—Continued.

TOBACCO—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
VIRGINIA—concluded.					
Strippers.....		10	85	95	3.43
Wrappers.....	1	41	125	167	6.08
All others.....	41	76	650	767	27.68
Total.....	802	741	1,228	2,771	100.00
WEST VIRGINIA.					
Cigar makers (cigar makers, rollers).....	48			48	78.69
Foreman.....	1			1	1.64
Packers.....		2		2	3.28
Strippers.....			10	10	16.39
All others.....					
Total.....	49	2	10	61	100.00

WOOLLEN GOODS.

CALIFORNIA.					
Carders.....	9			9	8.74
Dresser.....	1			1	.97
Dyers.....	4			4	3.88
Engineer.....	1			1	.97
Finishers.....	8			8	7.77
Fireman.....	1			1	.97
Fallers.....	9			9	8.74
Laborers.....	6			6	5.83
Loom fixer.....	1			1	.97
Oversizers.....	3			3	2.91
Scourer.....	1			1	.97
Shearer.....	1			1	.97
Spinners, other than mule.....	6			6	5.83
Spoolers.....			3	3	2.91
Weavers.....	46			46	44.66
Wool sorters.....	2			2	1.94
All others.....	1			1	.97
Total.....	100		3	103	100.00
CONNECTICUT.					
Barbers.....		18		18	6.10
Carders.....	15			15	5.28
Drawers-in.....		2		2	.74
Dressers.....	6			6	2.12
Dyers.....			5	5	1.75
Engineers.....	11			11	3.85
Finishers.....	14			14	4.87
Firemen.....	3			3	1.03
Fallers.....	3			3	1.03
Laborer.....	1			1	.34
Loom fixers.....	2			2	.68
Machinists.....	2			2	.68
Oversizers.....	8			8	2.76
Second hands.....	6			6	2.12
Spinners, mule.....	29			29	9.83
Spoolers.....		9		9	3.10
Teamster.....	1			1	.34
Weavers.....		61		61	20.68
All others.....	8	2	3	13	4.40
Total.....	109	87	17	213	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

WOOLLEN GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 293, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
DELAWARE.					
Burlers.....			25	25	8.39
Carders.....	10		9	19	6.38
Drawers-in.....	2		2	4	1.34
Dyer.....	1			1	.34
Engineers.....	2			2	.67
Finishers.....	6			6	2.02
Fireman.....	1			1	.34
Fullers.....	4			4	1.34
Giggers.....	3			3	1.00
Laborers.....	15		1	16	5.37
Loom fixers.....	5			5	1.68
Machinist.....	1			1	.34
Overseers.....	4			4	1.34
Pickers.....	6			6	2.02
Presser.....	1			1	.34
Scourers.....	2			2	.67
Shearers.....	1	2		3	1.00
Spinners, mule.....	5			5	1.68
Spoolers.....		3	6	9	3.02
Teamsters.....	3			3	1.00
Twisters.....		3		3	1.00
Weavers.....	57	35		92	30.87
Wool sorters.....	6			6	2.01
All others.....	31		46	77	25.84
Total.....	166	43	59	268	100.00
GREAT BRITAIN.					
Burlers.....			30	30	5.88
Dyers.....	6			6	1.18
Finishers.....	37		32	69	13.53
Loom fixers.....	6			6	1.18
Scourers.....	7			7	1.37
Spinners, mule.....	12			12	2.35
Weavers.....	3	178		181	35.49
Wool sorter.....	1			1	.20
All others.....	109	46	43	198	38.82
Total.....	181	224	105	510	100.00
ILLINOIS.					
Carders.....			9	9	3.48
Dyers.....	4			4	1.21
Dressers.....			5	5	1.28
Engineer.....	1			1	.05
Finishers.....	9	14		23	24.22
Machinist.....	1			1	.06
Overseers.....	8			8	8.43
Pickers.....			2	2	2.11
Second hand.....	1			1	.05
Spinners, other than mule.....	4	5		9	3.47
Weavers.....	28			28	29.47
Wool sorters.....	3			3	3.16
All others.....	1			1	.06
Total.....	60	19	16	95	100.00
INDIANA.					
Burlers.....		2		2	.35
Carders.....	2		37	39	6.76
Drawers-in.....	3	7	3	13	2.25
Dressers.....	3			3	.52
Dyers.....	34			34	5.89

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

WOOLLEN GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Per cent of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
INDIANA—concluded.					
Engineers.....	4			4	.69
Finishers.....	16	1	24	41	7.11
Firemen.....	4			4	.69
Fullers.....	13			19	3.29
Laborers.....	18		6	19	3.29
Loom fixers.....	6		1	6	1.04
Machinists.....	5			5	.86
Overseers.....	17			17	2.94
Pickers.....	8			8	.62
Second hands.....	6			6	1.04
Spinners, mule.....	4			4	.69
Spinners, other.....	1	20	86	107	18.68
Spoolers.....	1		7	8	1.28
Weavers.....	14	167		181	31.37
Wool sorters.....	15		5	20	3.46
All others.....	33		4	42	7.28
Total.....	207	197	173	577	100.00
IOWA.					
Carders.....	3		4	7	13.73
Dyer.....	1			1	1.96
Engineer.....	1			1	1.96
Finishers.....	3	3		5	9.81
Foremen.....	4			4	7.85
Laborers.....	3			3	5.88
Spinners, mule.....	1			1	1.96
Spinners, other.....		3		3	5.88
Twisters.....			5	5	9.80
Weavers.....	2	15		17	33.33
Wool sorters.....	1			1	1.96
All others.....	3			3	5.88
Total.....	21	21	9	51	100.00
KENTUCKY.					
Carders.....	4	4	25	33	6.82
Dyers.....	15			15	3.10
Engineers.....	2			2	.41
Finishers.....	1		30	31	6.40
Firemen.....	2			2	.41
Laborers.....	15			15	3.10
Loom fixers.....	5			5	1.03
Overseers.....	10			10	2.07
Pickers.....	10			10	2.07
Spinners, other than mule.....			48	48	9.92
Weavers.....		200		200	53.73
Wool sorters.....	6		7	13	2.66
All others.....	3	36	2	40	8.26
Total.....	72	300	112	484	100.00
MAINE.					
Carders.....		5	14	19	6.96
Dresser.....	1			1	.37
Drier.....	1			1	.37
Dyers.....	4			4	1.47
Engineer.....	1			1	.37
Finisher.....	1			1	.37
Fireman.....	1			1	.37
Fullers.....	2			2	.78
Giggers.....	2			2	.78
Laborers.....	30			30	10.96

SUMMARY OF EMPLOYÉS, WITH PER CENT:—Continued.

WOOLLEN GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Per cent of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
MAINE—concluded.					
Loom fixers	3			3	1.10
Machinists	2			2	.73
Overseers	15			15	5.49
Pickers	3	1		4	1.47
Presser	1			1	.36
Scourers	3			3	1.10
Second hands	13			13	4.78
Shearers	2			2	.73
Spinners, mule	21			21	7.69
Spinners, other	4			4	1.47
Spoolers	5			5	1.83
Teamster	1			1	.36
Twister	1			1	.36
Weavers	85	15		100	36.08
Wool sorters	9			9	3.30
All others	15	12		27	9.89
Total	226	33	14	273	100.00
MARYLAND.					
Burlers		4		4	1.66
Drawers-in		2		2	.80
Dyers	18			18	7.29
Engineers	2			2	.80
Finishers			5	5	2.00
Foremen	8			8	3.29
Fullers	5			5	2.00
Laborers	4			4	1.66
Loom fixers	2			2	.80
Machinists	2			2	.80
Pickers	12	9	4	25	10.00
Scourers	4			4	1.66
Shearer	1			1	.40
Spinners, mule	4			4	1.66
Spoolers		9		9	3.69
Teamsters	3			3	1.20
Weavers	4	69		73	29.20
Wool sorters	1		2	3	1.20
All others	23	8	45	76	30.40
Total	96	101	56	253	100.00
MASSACHUSETTS.					
Burlers		4		4	.37
Carders	18		65	83	5.75
Drawers-in		3		3	.54
Dressers	19	15		34	2.37
Driers	11			11	.74
Dyers	57			57	3.81
Engineers	4			4	.37
Finishers	51	10		61	4.06
Fullers	18			18	1.39
Giggers	40			40	2.63
Laborers	24		7	31	2.07
Loom fixers	10			10	.67
Machinists	6			6	.40
Overseers	38			38	2.54
Pickers	16		4	20	1.34
Pressers	5			5	.34
Scourers	16			16	1.07
Second hands	47			47	3.14
Shearers	6			6	.40
Spinners, mule	88			88	5.89
Spinners, other		8		8	.54

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

WOOLLEN GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Per cent. of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
MASSACHUSETTS—concluded.					
Spoolers			44	44	2.94
Teamsters	4			4	.27
Twisters	4			4	.27
Weavers	161	340	5	506	33.84
Wool sorters	24			24	1.61
All others	107	156	52	315	21.06
Total	774	544	177	1,495	100.00
MISSOURI.					
Carders	17			17	14.05
Dyers	11			11	9.09
Engineer	1			1	.83
Finishers	9	13		22	18.18
Laborers	3			3	2.48
Machinist	1			1	.82
Overseers	5			5	4.13
Spinners, mule	18			18	14.88
Twisters		4		4	3.31
Weavers	17	7		24	19.83
Wool sorters	9			9	7.44
All others	6			6	4.96
Total	97	24		121	100.00
NEW HAMPSHIRE.					
Burlers		30		30	8.24
Carders		19		19	5.23
Dressers	6			6	1.65
Driers	2			2	.55
Engineer	1			1	.27
Firemen	2			2	.55
Fullers	8			8	2.20
Laborers	38			38	10.44
Loom fixers	6			6	1.65
Machinists	3			3	.82
Overseers	21			21	5.78
Second hands	9			9	2.47
Shearers	6			6	1.65
Spinners, mule	18			18	4.95
Spoolers		14		14	3.84
Teamsters	2			2	.55
Weavers	50	45		95	26.10
Wool sorters	20			20	5.49
All others	49	15		64	17.58
Total	241	123		364	100.00
NEW JERSEY.					
Carders	10	1	6	17	5.21
Dyers	8			8	2.46
Finishers	24	24		48	14.73
Laborers	18			18	5.52
Loom fixers	12			12	3.68
Overseers	18			18	5.52
Pickers	18			18	5.52
Spinners, other than mule	18	6	12	36	11.04
Weavers	50	30	22	102	31.29
Wool sorters	1	12		13	3.99
All others	33		4	36	11.04
Total	209	73	44	326	100.00

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Continued.

WOOLLEN GOODS—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

States and occupations.	Number of employées.				Percent of number of employées in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
NEW YORK.					
Burlers.....		66	19	85	7.71
Carders.....	16		25	51	4.62
Drawers-in.....	2	6		8	.73
Dressers.....	5			5	.45
Driers.....	20			20	1.81
Dyers.....	40			40	3.63
Engineers.....	3			3	.27
Finishers.....	2			2	.18
Firemen.....	5			5	.45
Fullers.....	10			10	.91
Giggers.....	15		1	16	1.45
Laborers.....	12			12	1.09
Loom fixers.....	6			6	.54
Machinists.....	7			7	.63
Overseers.....	19			19	1.73
Pickers.....	3			3	.27
Pressers.....	6			6	.54
Scourers.....	22			22	1.99
Second hands.....	3			3	.27
Shearers.....	11			11	1.00
Spinners, mule.....	27		11	38	3.44
Spinners, other.....		14	41	55	4.99
Spoolers.....			45	45	4.06
Teamsters.....	3			3	.27
Twisters.....			67	67	6.07
Weavers.....	126	105	2	233	21.13
Wool sorters.....	44			44	3.99
All others.....	74	78	122	274	24.84
Total.....	491	269	343	1,103	100.00
NORTH CAROLINA.					
Burler.....		1		1	1.64
Carders.....			4	4	6.56
Dyers.....	4			4	6.56
Engineer.....	1			1	1.64
Finishers.....	4	8		7	11.47
Fireman.....	1			1	1.64
Loom fixers.....	4			4	6.55
Overseers.....	5			5	8.20
Pickers.....	2			2	3.28
Spinners, mule.....	3			3	4.92
Weavers.....		17		17	27.87
Wool sorters.....	2			2	3.28
All others.....	3		7	10	16.39
Total.....	29	21	11	61	100.00
PENNSYLVANIA.					
Burlers.....		129		129	5.75
Carders.....	10			10	.45
Dressers.....	8		10	18	.80
Dyers.....	49			49	2.18
Engineers.....	3			3	.13
Finishers.....	31			31	1.38
Firemen.....	2			2	.09
Giggers.....	20			20	.89
Laborers.....	61			61	2.73
Loom fixers.....	19			19	.85
Machinists.....	4			4	.18
Overseers.....	17			17	.76
Pickers.....	50			50	2.23
Scourer.....	1			1	.05
Shearers.....	10			10	.45
Spinners, mule.....	35			35	1.56

SUMMARY OF ALL EMPLOYÉS, WITH PER CENT.—Concluded.

WOOLEN GOODS—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 296, whence derived.

States and occupations.	Number of employes.				Per cent. of number of employes in each occupation of the whole number considered in the industry in the state.
	Adult male.	Adult female.	Children and youth.	Total.	
PENNSYLVANIA—concluded.					
Spoolers	28	27	.....	55	2.45
Teamster	1	.....	.....	1	.04
Twisters	25	2	.....	27	1.20
Weavers	736	150	.....	886	35.02
Wool sorters	27	13	.....	40	1.78
All others	500	73	194	776	34.58
Total	1,646	394	204	2,244	100.00
VERMONT.					
Burlers .....	.....	.....	173	173	21.15
Carders	14	.....	3	17	2.08
Dressers	4	.....	.....	4	.49
Driers	4	.....	.....	4	.49
Dyers	24	.....	.....	24	2.93
Firemen	2	.....	.....	2	.25
Fullers	16	.....	.....	16	1.96
Giggers	22	.....	.....	22	2.68
Laborers	1	.....	1	2	.25
Loom fixers	8	.....	.....	8	.98
Machinists	6	.....	.....	6	.73
Overseers	23	.....	.....	23	2.81
Pickers	13	.....	1	14	1.71
Pressers	5	.....	15	20	2.45
Scourers	8	.....	.....	8	.98
Second hands	17	.....	.....	17	2.07
Spinners, mule	44	.....	.....	44	5.38
Spoolers .....	.....	.....	12	12	1.47
Teamsters	4	.....	.....	4	.49
Weavers	43	100	.....	143	17.48
All others	124	30	91	255	31.17
Total	392	130	206	818	100.00

SUMMARY OF ALL EMPLOYÉS, WITH WAGES AND TIME, BY STATES.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

Industries and states.	Number of establishments.	Number of employes.				Average rates of daily wages.			Average running time.		
		Adult male.	Adult fem.	Children and youth.	Total.	Adult male.	Adult fem.	Children and youth.	Daily.		Days the past year.
									Hours.	Minutes.	
AGRICULTURAL IMPLEMENTS.											
Maine.....	1	46			46	\$1 76			9		300
New York.....	1	64			64	1 83			10		300
Pennsylvania.....	1	81			81	1 69			10		300
Kentucky.....	1	46			46	1 81			10		275
Ohio.....	11	2,693		2	2,695	1 81		\$0 80	10		261
Indiana.....	2	583		50	633	1 65		68	10		250
Illinois.....	3	2,330		32	2,362	1 99		68	10		270
ARMS AND AMMUNITION.											
Massachusetts.....	1	437			437	2 02			10		302
ARTISANS' TOOLS.											
Indiana.....	1	91		8	99	1 59		1 12	10		280
BOOTS AND SHOES.											
Massachusetts.....	19	1,574	500	81	2,215	2 06	\$1 34	80	9	51	268
New York.....	14	1,538	1,150	195	2,883	1 98	1 25	74	10		300
New Jersey.....	1	175	60	25	260	2 46	1 66	58	10		300
Pennsylvania.....	2	601	212	100	913	1 96	1 33	68	10		245
Maryland.....	4	182	130	49	361	1 70	89	76	10		261
Kentucky.....	1	83	30		63	2 39	1 00		10		235
Ohio.....	4	381	325	67	773	2 35	1 24	86	10		300
Illinois.....	1	123	60		182	2 40	1 50		10		275
California.....	2	294	40		334	1 81	1 47		10		270
BOXES.											
New York.....	1	57			57	2 40			10		300
Virginia.....	2	55	287	31	373	2 12	65	64	10		295
BRICK.											
New Hampshire.....	1	63			63	1 56					
New Jersey.....	2	200			200	1 57					
Delaware.....	1	73		8	81	1 42		50			
Missouri.....	1	125			125	1 39					
BROOMS.											
New York.....	5	359			359	1 47			10		273
CARPETINGS.											
Massachusetts.....	4	556	769	242	1,567	1 31	1 14	65	10		300
Connecticut.....	1	10	58	20	88	1 75	1 51	65	13		309
New York.....	3	4,110	3,814	1,332	8,756	1 54	1 23	61	10	30	233
Pennsylvania.....	2	1,587	263	80	1,890	1 47	81	75	10		250
Great Britain.....	2	225	61	112	398	1 20	62	40	10		
CARRIAGES AND WAGONS.											
Connecticut.....	4	407			407	2 28			10		304
New Jersey.....	1	52			52	2 03			10		306
Pennsylvania.....	1	18		4	22	1 69		83	10		250

SUMMARY OF ALL EMPLOYEES, WITH WAGES AND TIME, BY STATES—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

Industries and states.	Number of establishments.	Number of employees.				Average rates of daily wages.			Average running time.		
		Adult male.	Adult fem.	Children and youth.	Total.	Adult male.	Adult fem.	Children and youth.	Daily.		Days the past year.
									Hours.	Minutes.	
CARRIAGES AND WAGONS—concluded.											
Ohio.....	2	578	45	.....	623	\$1 79	\$1 15	.....	10	.....	309
Illinois.....	4	349	.....	23	372	2 03	.....	\$0 76	10	.....	302
CLOCKS AND WATCHES.											
Ohio.....	1	60	40	.....	109	2 29	1 00	.....	10	.....	275
Illinois.....	1	712	355	.....	1,067	1 98	1 67	.....	10	.....	.....
CLOTHING.											
New York.....	15	401	1,001	334	1,736	1 50	90	62	11	.....	299
New Jersey.....	2	327	98	15	438	2 16	1 08	84	10	.....	300
Pennsylvania.....	3	530	175	147	852	1 60	88	43	10	.....	303
Virginia.....	1	81	27	55	113	1 68	75	53	10	.....	300
COAL, COKE, AND ORE.											
Pennsylvania.....	4	2,565	.....	.....	2,565	1 72	.....	.....	9	.....	236
Maryland.....	3	927	.....	8	935	1 61	.....	70	11	.....	227
Virginia.....	2	407	.....	11	418	1 17	.....	69	10	.....	300
West Virginia.....	9	936	.....	23	959	1 64	.....	50	10	.....	234
Ohio.....	11	1,362	.....	33	1,395	1 73	.....	66	9	42	204
Indiana.....	2	1,639	.....	.....	1,639	1 49	.....	.....	10	.....	222
Missouri.....	2	299	.....	35	334	1 68	.....	75	10	.....	.....
Great Britain.....	2	516	.....	154	670	1 02	.....	52	9	30	.....
COOKING AND HEATING APPARATUS.											
New York.....	5	2,030	.....	510	2,540	2 46	.....	74	10	.....	300
Pennsylvania.....	1	78	.....	.....	78	3 03	.....	.....	10	.....	.....
West Virginia.....	1	51	.....	12	63	1 97	.....	1 25	10	.....	256
Kentucky.....	1	56	.....	.....	56	2 14	.....	.....	10	.....	250
Ohio.....	6	777	.....	79	856	2 21	.....	83	10	.....	271
Illinois.....	9	522	.....	77	599	2 41	.....	81	10	.....	272
Michigan.....	2	1,222	.....	729	1,951	1 94	.....	67	10	.....	259
COTTON COMPRESSING.											
Arkansas.....	1	26	.....	.....	26	1 70	.....	.....	10	.....	.....
COTTON GOODS.											
Maine.....	3	1,486	1,096	767	3,339	1 23	98	51	11	.....	303
New Hampshire.....	3	622	2,365	618	3,605	1 33	91	69	10	45	309
Vermont.....	1	189	72	78	279	1 15	84	56	11	.....	230
Massachusetts.....	12	2,000	4,071	977	7,048	1 37	85	55	10	.....	201
Connecticut.....	1	100	153	55	308	1 35	90	43	11	.....	303
New York.....	7	1,615	2,177	2,880	6,672	1 23	86	41	11	4	238
New Jersey.....	1	36	158	50	244	1 44	84	60	10	.....	300
Pennsylvania.....	1	144	202	51	397	1 27	1 06	64	10	.....	302
Delaware.....	2	81	158	91	330	1 19	82	51	10	.....	300
Maryland.....	4	232	650	236	1,118	1 32	79	45	11	.....	302
Virginia.....	4	124	266	207	597	1 24	75	47	11	.....	297
North Carolina.....	6	275	371	326	972	96	71	44	11	30	279
South Carolina.....	1	168	124	.....	292	96	74	.....	11	.....	306
Georgia.....	2	199	203	290	692	1 02	75	43	11	30	310
France.....	2	76	160	18	254	69	54	32	11	30	300
Germany.....	1	896	1,144	376	2,416	60	46	32	12	.....	303
Great Britain.....	5	463	431	261	1,155	1 17	73	45	10	.....	300
Italy.....	1	354	476	217	1,047	46	25	17	12	.....	292

SUMMARY OF EMPLOYÉS, WITH WAGES AND TIME, BY STATES—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 296, whence derived.

Industries and states.	Number of establishments.	Number of employees.				Average rates of daily wages.			Average running time.		
		Adult male.	Adult fem.	Children and youth.	Total.	Adult male.	Adult fem.	Children and youth.	Daily.		Days the past year.
									Hours.	Minutes.	
ENGRAVING AND PRINTING.											
New Jersey.....	1	77	.....	.....	77	\$3 36	.....	.....	11	.....	308
FOOD PREPARATIONS.											
New Hampshire.....	1	9	.....	.....	9	2 27	.....	.....	12	.....	275
West Virginia.....	1	6	.....	.....	6	2 08	.....	.....	11	.....	300
Ohio.....	6	197	.....	.....	197	1 43	.....	.....	11	50	253
Indiana.....	2	559	.....	92	651	1 72	.....	\$0 75	11	.....	300
Illinois.....	10	301	.....	.....	301	1 92	.....	.....	12	.....	296
Minnesota.....	1	845	.....	.....	845	2 07	.....	.....	12	.....	312
Missouri.....	4	120	.....	.....	120	1 92	.....	.....	12	.....	300
California.....	3	108	.....	2	110	2 47	.....	1 75	11	.....	268
FURNITURE.											
Kentucky.....	1	117	.....	.....	117	1 51	.....	.....	9	.....	258
Indiana.....	3	508	.....	58	566	1 50	.....	58	10	.....	298
Michigan.....	4	707	.....	60	776	1 06	.....	58	10	.....	291
GLASS.											
New Jersey.....	4	489	.....	308	797	2 36	.....	57	8	22	255
Pennsylvania.....	15	1,500	27	691	2,218	2 79	\$1 85	64	9	9	263
West Virginia.....	1	48	.....	38	86	2 04	.....	59	10	.....	258
Kentucky.....	1	50	.....	19	69	2 38	.....	51	.....	.....	.....
Ohio.....	6	365	.....	200	574	2 10	.....	58	10	.....	304
Illinois.....	1	42	.....	.....	42	2 29	.....	.....	10	.....	249
California.....	1	86	.....	62	148	2 82	.....	77	10	.....	230
JUTE GOODS.											
New York.....	1	119	177	106	402	1 49	79	57	10	.....	302
New Jersey.....	1	30	62	45	127	1 37	85	50	10	.....	300
California.....	1	22	62	62	146	2 04	1 00	50	10	30	300
LEATHER.											
Massachusetts.....	1	125	.....	.....	125	1 56	.....	.....	10	.....	308
Pennsylvania.....	4	265	14	1	270	2 14	1 57	67	10	30	295
Delaware.....	3	387	14	49	400	1 81	1 13	65	10	.....	298
California.....	4	162	.....	2	154	2 06	.....	1 33	10	.....	300
LINEN.											
Belgium.....	1	366	500	.....	816	52	40	.....	12	30	.....
Great Britain.....	1	180	500	.....	720	73	87	.....	10	.....	302
LIQUORS AND BEVERAGES.											
Pennsylvania.....	1	102	.....	.....	102	1 60	.....	.....	10	.....	300
Ohio.....	4	165	.....	.....	165	2 11	.....	.....	12	.....	300
Illinois.....	6	226	.....	.....	226	2 12	.....	.....	11	40	302
LUMBER.											
Maine.....	1	95	.....	.....	95	1 82	.....	.....	10	30	.....
West Virginia.....	2	35	.....	.....	35	1 22	.....	.....	10	.....	300
Arkansas.....	1	20	.....	.....	20	1 73	.....	.....	10	.....	291

a This average is for blowers, cutters, flatteners, and gatherers of a single establishment, other occupations not being reported.

SUMMARY OF EMPLOYEES, WITH WAGES AND TIME, BY STATES—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

Industries and states.	Number of establishments.	Number of employees.				Average rates of daily wages.			Average running time.		
		Adult male.	Adult fem.	Children and youth.	Total.	Adult male.	Adult fem.	Children and youth.	Daily.		Days the past year.
									Hours.	Minutes.	
LUMBER—concluded.											
Illinois.....	2	501	.....	.....	501	\$1 54	.....	.....	11	.....	230
Michigan.....	1	84	.....	.....	84	1 60	.....	.....	11	.....	175
MACHINES AND MACHINERY.											
Maine.....	1	53	.....	5	58	2 01	.....	\$0 85	10	.....	.....
Massachusetts.....	2	331	.....	.....	331	1 95	.....	.....	10	.....	308
New Jersey.....	1	157	.....	.....	157	2 17	.....	.....	10	.....	300
Pennsylvania.....	1	331	.....	90	471	1 71	.....	57	10	.....	300
Kentucky.....	1	114	.....	6	120	1 83	.....	87	10	.....	.....
Indiana.....	5	733	.....	19	752	2 18	.....	61	10	.....	300
Illinois.....	1	97	.....	20	117	1 76	.....	73	10	.....	285
California.....	3	491	.....	63	554	2 61	.....	84	10	.....	300
METALS AND METALLIC GOODS.											
New Hampshire.....	1	187	.....	.....	187	1 49	.....	.....	10	.....	.....
Vermont.....	1	237	.....	.....	237	1 86	.....	.....	10	.....	300
Massachusetts.....	1	90	.....	.....	90	2 00	.....	.....	.....	.....	.....
New York.....	6	3,781	.....	255	4,036	1 74	.....	87	11	.....	327
New Jersey.....	1	111	.....	.....	111	1 83	.....	.....	9	.....	300
Pennsylvania.....	12	65,303	.....	13	5,316	1 86	.....	60	10	10	287
Delaware.....	1	60	.....	.....	60	1 83	.....	.....	10	.....	288
Maryland.....	3	234	.....	.....	234	1 24	.....	.....	12	.....	301
Virginia.....	6	1,477	.....	42	1,519	1 60	.....	36	10	40	303
West Virginia.....	1	333	.....	25	358	2 29	.....	54	10	.....	.....
Alabama.....	1	98	.....	.....	98	1 29	.....	.....	12	.....	.....
Kentucky.....	3	585	.....	37	622	2 19	.....	64	10	.....	321
Tennessee.....	1	27	.....	.....	27	1 87	.....	.....	12	.....	350
Ohio.....	19	5,060	.....	262	5,321	\$1 75	.....	72	11	9	284
Indiana.....	2	332	.....	.....	332	2 02	.....	.....	10	.....	234
Illinois.....	2	590	.....	102	692	2 56	.....	69	10	.....	251
Missouri.....	2	1,029	.....	.....	1,029	1 37	.....	.....	8	.....	.....
California.....	3	433	.....	.....	433	2 53	.....	.....	10	.....	390
Belgium.....	5	702	33	119	854	66	\$0 33	33	11	6	.....
Great Britain.....	8	1,120	10	24	1,154	1 84	63	48	11	.....	.....
MUSICAL INSTRUMENTS AND MATERIALS.											
Maine.....	1	40	.....	.....	40	1 53	.....	.....	10	.....	308
New Hampshire.....	1	24	.....	.....	24	1 95	.....	.....	10	.....	250
New York.....	5	1,738	18	160	1,915	2 12	1 50	69	10	.....	300
OILS AND ILLUMINATING FLUIDS.											
New York.....	1	115	.....	.....	115	1 36	.....	.....	10	.....	304
Pennsylvania.....	2	78	.....	.....	78	1 32	.....	.....	10	.....	307
PAPER.											
Maine.....	2	93	32	11	136	1 68	87	70	12	.....	.....
New Hampshire.....	1	174	36	.....	210	1 63	1 00	.....	12	.....	.....
Vermont.....	1	177	25	.....	202	1 68	75	.....	12	.....	.....

a Not including 2 shinglers and 11 rollers, whose wages as reported were inseparably combined with the wages of their helpers.

b In computing this average there were excluded 1 gutterman, 1 galvanizer, 4 heaters, 17 knobblers, 1 plate piler, and 1 plate roller, whose wages were inseparably combined with the wages of their helpers; also 7 heaters, 8 rollers, and 50 drag-outs and straighteners, whose wages were inseparably reported.

SUMMARY OF EMPLOYÉS, WITH WAGES AND TIME, BY STATES—Continued.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 295, whence derived.

Industries and states.	Number of establishments.	Number of employes.				Average rates of daily wages.			Average running time.		
		Adult male.	Adult fem.	Children and youth.	Total.	Adult male.	Adult fem.	Children and youth.	Daily.		Days the past year.
									Hours.	Minutes.	
PAPER—concluded.											
Massachusetts	7	568	359	8	935	\$1 57	\$0 97	\$0 73	11	26	300
Delaware	3	148	33	8	189	1 84	92	69	12	.....	297
Oregon	1	25	15	5	45	2 05	1 25	87	12	.....	.....
California	1	35	.....	.....	35	1 58	.....	.....	12	.....	298
PRINT WORKS.											
New Hampshire	1	301	59	97	457	1 65	93	72	10	.....	300
Massachusetts	2	489	26	224	739	1 78	95	74	10	.....	.....
New York	1	14	26	3	43	1 66	83	87	11	.....	300
New Jersey	1	305	.....	.....	305	1 32	.....	.....	10	.....	300
Pennsylvania	1	346	65	346	757	1 66	90	57	10	.....	.....
RAILROAD CONSTRUCTION.											
Vermont	1	105	.....	.....	105	1 57	.....	.....	10	.....	.....
Virginia	1	288	.....	14	302	1 77	.....	70	10	.....	300
North Carolina	2	129	.....	17	146	1 57	.....	53	10	.....	300
Tennessee	1	37	.....	.....	37	1 60	.....	.....	10	.....	.....
RUBBER.											
Massachusetts	1	635	600	.....	1,225	1 85	1 16	.....	10	.....	300
New Jersey	3	544	344	118	1,006	1 52	1 00	1 04	10	.....	295
SILK.											
Connecticut	1	10	80	.....	99	1 78	99	.....	10	.....	300
New York	3	87	232	47	366	1 76	87	70	10	40	272
New Jersey	2	313	326	60	1,199	2 44	1 46	1 00	10	.....	276
STONE.											
Maine	1	194	.....	.....	194	2 18	.....	.....	10	.....	.....
TOBACCO.											
Rhode Island	1	16	4	2	22	2 07	1 00	1 25	10	.....	300
Connecticut	1	17	4	.....	21	2 30	79	.....	10	.....	300
New York	1	39	159	23	226	2 02	97	67	10	.....	304
New Jersey	2	43	50	10	103	1 69	90	66	9	10	300
Virginia	7	802	741	1,228	2,771	1 11	60	53	10	.....	300
West Virginia	1	49	2	10	61	1 53	60	50	10	.....	300
North Carolina	3	294	127	217	638	1 02	60	39	10	30	294
Kentucky	2	50	26	59	135	1 43	1 13	79	10	.....	305
Ohio	7	548	401	184	1,133	1 57	1 20	45	9	30	292
Illinois	8	240	148	178	566	1 75	1 17	49	9	45	298
Michigan	1	65	4	89	158	1 42	1 00	72	10	.....	300
Missouri	2	842	85	30	957	1 28	93	1 00	10	.....	.....
VESSELS.											
Maine	3	301	.....	.....	301	1 73	.....	.....	10	.....	.....
Delaware	2	2,275	.....	62	2,337	1 77	.....	70	10	.....	300
WOODEN GOODS.											
Virginia	1	123	.....	81	303	1 34	.....	74	10	.....	30

SUMMARY OF ALL EMPLOYÉS, WITH WAGES AND TIME, BY STATES—Concluded.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 235, whence derived.

Industries and states.	Number of establishments.	Number of employes.				Average rates of daily wages.			Average running time.			
		Adult male.	Adult fem.	Children and youth.	Total.	Adult male.	Adult fem.	Children and youth.	Daily.		Days the past year.	
									Hours.	Minutes.		
WOODEN GOODS—concluded.												
Indiana	1	58			58	\$2 13				10		300
California	1	103			103	2 45				10		275
WOOLLEN GOODS.												
Maine	4	326	33	14	273	1 42	\$0 96	\$0 71		11		
New Hampshire	1	241	123		364	1 61	1 15			11		
Vermont	1	392	180	296	818	1 31	1 11		59	11		305
Massachusetts	8	774	544	177	1,495	1 35	1 03		69	10		270
Connecticut	2	109	87	17	213	1 46	96		54	11	15	304
New York	3	491	269	343	1,103	1 38	94		61	10	40	291
New Jersey	1	209	73	44	326	1 21	83		50	10		300
Pennsylvania	4	1,643	394	304	2,244	1 65	1 10		70	10		278
Delaware	2	166	43	89	298	1 63	1 27		61	10		304
Maryland	1	98	101	56	250	1 47	98		50	11		303
North Carolina	1	29	21	11	61	1 07	70		48	11	30	300
Kentucky	2	72	300	112	484	1 69	79		60	11		310
Indiana	4	207	197	173	577	1 42	97		62	10	45	275
Illinois	1	60	19	16	95	1 65	80		52	10	30	306
Iowa	1	21	21	9	51	1 81	1 07		67	10		
Missouri	1	97	24		121	1 53	1 69			10		200
California	1	100		3	103	1 45			75	10		300
Great Britain	1	181	224	105	510	88	48		43	10		
MISCELLANEOUS.												
Maine	1	107			107	1 77				12		
New Hampshire	1	10		19	29	1 29			83	10		
Massachusetts	1	37	250		287	2 17	80			10		300
New Jersey	4	540	106	157	803	2 00	84	1 07		9	55	287
Great Britain	1	30	6		36	1 54	55			10		

SUMMARY OF ALL EMPLOYÉS, WITH WAGES AND TIME, BY INDUSTRIES.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See detail table, Appendix A, page 235, whence derived.

Industries.	Number of establishments.	Number of employées.				Average rates of daily wages.			Average running time.		
		Adult male.	Adult fem.	Children and youth.	Total.	Adult male.	Adult fem.	Children and youth.	Daily.		Days the past year.
									Hours.	Minutes.	
Agricultural implements.	20	5,848	.....	84	5,932	\$1 86	.....	\$0 69	9	57	271
Arms and ammunition.	1	437	.....	.....	437	2 02	.....	.....	10	.....	303
Artisans' tools.	1	91	.....	8	99	1 58	.....	1 12	10	.....	280
Boots and shoes.	48	4,900	2,567	517	7,984	2 05	\$1 24	75	9	56	278
Boxes.	2	112	237	81	430	2 28	65	64	10	.....	297
Brick.	5	461	.....	8	469	1 49	.....	50	.....	.....	.....
Brooms.	5	359	.....	.....	359	1 47	.....	.....	10	.....	272
Carpetings (United States).	10	6,213	4,404	1,074	12,291	1 51	1 19	62	10	6	286
Carpetings (Great Britain).	2	225	61	112	398	1 20	62	40	10	.....	.....
Carriages and wagons.	12	1,404	45	27	1,476	1 08	1 15	77	10	.....	296
Clocks and watches.	2	781	395	.....	1,176	2 00	1 60	.....	10	.....	275
Clothing.	21	1,289	1,299	551	3,139	1 72	91	58	10	9	299
Coal, coke, and ore (United States).	34	9,185	.....	110	9,245	1 64	.....	66	9	.....	229
Coal, coke, and ore (Great Britain).	2	516	.....	184	670	1 02	.....	52	9	30	.....
Cooking and heating apparatus.	25	4,736	.....	1,407	6,143	2 28	.....	72	10	.....	269
Cotton compressing.	1	26	.....	.....	26	1 70	.....	.....	10	.....	.....
Cotton goods (United States).	48	7,111	12,056	6,596	25,863	1 26	87	48	10	58	297
Cotton goods (France).	2	76	160	18	254	69	54	32	11	.....	300
Cotton goods (Germany).	1	896	1,144	376	2,416	60	46	32	12	.....	303
Cotton goods (Great Britain).	5	463	481	261	1,155	1 17	72	45	10	.....	300
Cotton goods (Italy).	1	354	476	217	1,047	46	25	17	12	.....	292
Engraving and printing.	1	77	.....	.....	77	3 36	.....	.....	11	.....	308
Food preparations.	28	1,643	.....	84	1,627	1 86	.....	77	11	45	258
Furniture.	8	1,832	.....	127	1,459	1 58	.....	71	9	58	285
Glass.	29	2,580	27	1,327	3,934	2 98	1 85	58	9	42	249
Hute goods.	3	161	301	213	675	1 55	85	58	10	16	301
Leather.	12	899	28	52	949	1 92	1 35	70	10	16	299
Linen (Belgium).	1	256	560	.....	816	52	40	.....	12	39	.....
Linen (Great Britain).	1	120	519	.....	729	73	86	.....	10	.....	302
Liquors and beverages.	11	498	.....	.....	498	2 01	.....	.....	11	38	301
Lumber.	7	834	.....	.....	834	1 58	.....	.....	10	36	241
Machines and machinery.	15	2,357	.....	303	2,560	2 12	.....	69	10	.....	300
Metals and metallic goods (United States).	65	20,026	.....	736	20,762	1 80	.....	74	10	42	270
Metals and metallic goods (Belgium).	5	702	23	119	854	66	33	23	11	6	.....
Metals and metallic goods (Great Britain).	8	1,120	10	24	1,154	1 35	63	48	11	.....	.....
Musical instruments and materials.	7	1,802	18	159	1,979	2 22	1 50	69	10	.....	294
Oil and illuminating fluids.	2	198	.....	.....	193	1 55	.....	.....	12	.....	306
Paper.	16	1,220	500	82	1,753	1 64	96	78	11	45	290
Print works.	6	1,355	176	670	2,201	1 66	91	66	10	10	300
Railroad construction.	5	559	.....	31	590	1 68	.....	.....	10	.....	300
Rubber.	4	1,169	944	118	2,231	1 70	1 10	1 04	10	.....	296
Silk.	6	419	1,123	107	1,654	2 27	1 31	87	10	39	278
Stone.	1	194	.....	.....	194	2 18	.....	.....	10	.....	.....
Tobacco.	35	2,065	1,751	2,035	6,791	1 33	86	58	9	50	296
Vessels.	5	2,876	.....	62	2,633	1 77	.....	70	10	.....	300
Wooden goods.	3	273	.....	81	364	1 90	.....	74	10	.....	292
Woollen goods (United States).	38	4,983	2,379	1,564	8,926	1 49	1 00	62	10	49	299
Woollen goods (Great Britain).	1	181	224	105	510	88	48	43	10	.....	.....
Miscellaneous (United States).	7	694	866	176	1,736	1 98	81	1 04	10	9	293
Miscellaneous (Great Britain).	1	30	6	.....	36	1 54	55	.....	10	.....	.....
Totals.	582	96,621	32,375	20,186	149,182	.....	.....	.....	.....	.....	.....

As with facts relative to cost of production in foreign countries, so it has been in some degree with rates of wages in such countries. They were not obtained on a basis which enabled the Bureau to classify them in the preceding summaries; yet these rates, being obtained from the best possible sources and being authoritative, are of great value to employers and employes, and are therefore presented in the form in which they were secured, together with such explanatory matter as seems of value.

The system of payment for counts of yarn spun in Oldham is an equitable one, the prices being fixed in accordance with the circumstances of individual firms, and not on an inflexible scale. When an order is received at a mill for yarn which can be satisfactorily produced from an inferior grade of cotton, the manager puts it in, reduces speed, and pays the spinners a small increase in price. But should a manufacturer improve his machinery, or by the use of superior talent keep the machinery in first-class order, or by the use of superior grades of cotton be enabled to increase the speed of his mill without too severely taxing the spinners and piecers, he is granted a reduction. By this equitable system of payment employers are stimulated to constantly improve their machinery and keep it in good condition, and reap their rewards in increased production and diminished cost, thus gaining an important point over competitors in other localities who are hampered by a fixed scale of prices, and who consequently possess but little or no inducements to make improvements, as they would have to pay the same fixed price for their yarn as some neighboring mill using old-fashioned machinery.

Workmen in cotton-spinning mills were formerly paid by the length of yarn spun; but this method has been superseded by the weight system, as the length system was open to serious abuses owing to the manner in which the lengths of yarn were registered. It is now in turn alleged by the operative spinners that the weight system is sometimes unscrupulously abused by managers, and mills using the system are compelled to pay 5 per cent. additional to the computed weight to their operatives. A spinner spinning, say number 32, although averaging full on his counts, not infrequently drops to 31 or goes up to 33, which by the weight system makes a difference of from 75 cents to \$1 per week in his wages. The number of turns per inch in the yarn and the weight of the doffing skips are also grounds for difference of opinion between operatives and employers, and not infrequently terminate in local strikes.

The Oldham method of payment for yarn spun gives general satisfaction to all concerned, and operatives in the Oldham district are in no way affected by the objectionable points in the weight system, for without regard to thickness or hardness the Oldham operatives are paid by length, which is registered by an indicator attached to the machines and with which it is not possible to tamper.

The places comprised in the Oldham district to which the Oldham list of wages applies are Chadderton, Hollinwood, Littleborough, Lees, Middleton, Oldham, Royton, Shaw, and Crompton and Waterhead, the whole containing in July, 1885, almost as many spindles as there are in United States. The standard list of wages and conditions was established in January, 1876, it being at that time agreed to by both employers and employed. This list only applies to the wages of operative spinners, but as that body has a powerful and complete organization of over five thousand members, other classes of hands are generally guided by its decisions. The trade depression of 1877-78-79 caused reductions to be made from this list amounting in all to 20 per cent. Improved trade in 1880 and 1881 restored 10 of this 20 per cent.^a No change has been made in the list since 1881, so that wages stand at this time (July, 1885), at 10 per cent. less than the standard list.

October 22, 1877, a reduction of 5 per cent. was made from the list; and May 27, 1878, a further reduction to the same extent. Two other reductions, each of 5 per cent., the one November 29, 1878, and the other October 29, 1879, were also made.

On the other hand, two advances, each of 5 per cent., were made, the first February 9, 1880, and the second on the last making-up day in January, 1881, thus leaving a net reduction, since the list was framed in 1876, of 10 per cent. It does not follow that wages are less now than ten years ago, the workmen having derived some of the advantage of quicker speed in machinery, the maximum rate of speed being even not yet reached.

A mill running three draws in fifty seconds in 1876 is probably running three draws in forty-four seconds in 1885, so that on a pair of 1,200 spindle mules six seconds would mean an addition of \$1 per week to a spinner's earnings, the work of the spinner being, however, considerably more arduous under present circumstances than it formerly was.

In the following table is shown the standard list of wages per week of fifty-five hours paid at Oldham, England, to operative spinners on self-acting mules, running three draws in fifty seconds, with 63-inch draw, for any counts, twist, or weft, each spinner having the care of two mules. The amounts shown for two piecers are the amounts for both, and not for each:

^a By this is meant that one-half the loss was restored. Throughout what is said in this connection as to cut-down or advance in wages in the Oldham district, the per cents. must be taken in their familiar meaning and not in a strict arithmetical sense.

SPINNERS' WAGES AT OLDHAM, ENGLAND, 1885. a

Spindles to each mule.	Wages.			Percentage.		Spindles to each mule.	Wages.			Percentage.	
	One spinner.	Two piecers.	Total.	One spinner.	Two piecers.		One spinner.	Two piecers.	Total.	One spinner.	Two piecers.
432	\$6 12	\$2 76	\$8 88	68.92	31.08	924	\$7 76	\$6 48	\$14 24	54.49	45.51
444	6 16	2 76	8 92	69.06	30.94	936	7 80	6 48	14 28	54.62	45.38
456	6 20	2 76	8 96	69.20	30.80	948	7 84	6 48	14 32	54.75	45.25
468	6 24	2 76	9 00	69.34	30.66	960	7 88	6 48	14 36	54.87	45.13
480	6 28	2 76	9 04	69.47	30.53	972	7 92	6 48	14 40	55.00	45.00
492	6 32	2 76	9 08	69.60	30.40	984	7 96	6 48	14 44	55.12	44.88
504	6 36	2 76	9 12	69.74	30.26	996	8 00	6 48	14 48	55.25	44.75
516	6 40	2 76	9 16	69.87	30.13	1,008	8 04	6 52	14 52	55.38	44.62
528	6 44	2 76	9 20	70.00	30.00	1,020	8 08	6 72	14 80	54.59	45.41
540	6 48	3 24	9 72	66.67	33.33	1,032	8 12	6 72	14 84	54.72	45.28
552	6 52	3 24	9 76	66.80	33.20	1,044	8 16	6 72	14 88	54.84	45.16
564	6 56	3 24	9 80	66.94	33.06	1,056	8 20	6 72	14 92	54.96	45.04
576	6 60	3 24	9 84	67.07	32.93	1,068	8 24	6 96	15 20	54.21	45.79
588	6 64	3 48	10 12	65.61	34.39	1,080	8 28	6 96	15 24	54.33	45.67
600	6 68	3 48	10 16	65.76	34.24	1,092	8 32	6 96	15 28	54.45	45.55
612	6 72	3 48	10 20	65.88	34.12	1,104	8 36	6 92	15 28	54.71	45.29
624	6 76	3 48	10 24	66.02	33.98	1,116	8 40	7 20	15 60	51.85	48.15
636	6 80	3 84	10 64	63.91	36.09	1,128	8 44	7 20	15 64	53.96	46.04
648	6 84	3 84	10 68	64.05	35.95	1,140	8 48	7 20	15 68	54.08	45.92
660	6 88	3 84	10 72	64.18	35.82	1,152	8 52	7 20	15 72	54.20	45.80
672	6 92	3 84	10 76	64.31	35.69	1,164	8 56	7 92	16 48	51.96	48.06
684	6 96	4 80	11 76	59.18	40.82	1,176	8 60	7 92	16 52	52.06	47.94
696	7 00	4 80	11 80	59.32	40.68	1,188	8 64	7 92	16 56	52.17	47.83
708	7 04	4 80	11 84	59.46	40.54	1,200	8 68	7 92	16 60	52.29	47.71
720	7 08	4 80	11 88	59.60	40.40	1,212	8 72	8 64	17 36	50.23	49.77
732	7 12	5 28	12 40	57.42	42.58	1,224	8 76	8 64	17 40	50.34	49.66
744	7 16	5 28	12 44	57.56	42.44	1,236	8 80	8 64	17 44	50.46	49.54
756	7 20	5 28	12 48	57.69	42.31	1,248	8 84	8 64	17 48	50.57	49.43
768	7 24	5 28	12 52	57.83	42.17	1,260	8 88	8 64	17 52	50.69	49.31
780	7 28	6 00	13 28	54.82	45.18	1,272	8 92	8 64	17 56	50.80	49.20
792	7 32	6 00	13 32	54.96	45.04	1,284	8 96	8 64	17 60	50.91	49.09
804	7 36	6 00	13 36	55.09	44.91	1,296	9 00	8 64	17 64	51.02	48.98
816	7 40	6 00	13 40	55.22	44.78	1,308	9 04	8 76	17 80	50.80	49.20
828	7 44	6 24	13 68	54.39	45.61	1,320	9 08	8 76	17 84	50.90	49.10
840	7 48	6 24	13 72	54.52	45.48	1,332	9 12	8 76	17 88	51.01	48.99
852	7 52	6 24	13 76	54.65	45.35	1,344	9 16	8 76	17 92	51.12	48.88
864	7 56	6 24	13 80	54.78	45.22	1,356	9 20	8 76	17 96	51.23	48.77
876	7 60	6 24	13 84	54.91	45.09	1,368	9 24	8 76	18 00	51.33	48.66
888	7 64	6 24	13 88	55.04	44.96	1,380	9 28	8 76	18 04	51.44	48.56
900	7 68	6 24	13 92	55.18	44.82	1,392	9 32	8 76	18 08	51.55	48.45
912	7 72	6 24	13 96	55.30	44.70						

a In spinning pin cops spinners earn 24 cents a week more than these wages.

In cases where self-acting mules are run at a quicker speed than three draws in fifty seconds, with 63-inch draw for any counts of yarn, twist, or weft, one-half of the advantage of the difference arising from quicker speed is added to the total earnings. The amount of this increase may be seen in the table which follows. There would be a proportional increase for other lengths of draw:

INCREASE OF WAGES FOR QUICKER SPEED.

Spindles to each mule.	Wages increased.	Spindles to each mule.	Wages increased.	Spindles to each mule.	Wages increased.	Spindles to each mule.	Wages increased.
432	\$0.090	720	\$0.120	1,008	\$0.145	1,248	\$0.175
480	.090	768	.125	1,056	.150	1,296	.175
528	.095	816	.130	1,104	.155	1,344	.180
576	.100	864	.135	1,152	.155	1,392	.180
624	.105	912	.140	-----	-----	-----	-----
672	.110	960	.145	1,200	.165	-----	-----

The following clauses of the agreement between the employers, and operatives' associations explain the list and its applications and workings:

"Clause No. 1. The mode of calculating the length of yarn spun by self-acting mules to be as follows:

"From fifty-six and one-half hours shall be deducted, (a) an allowance of one and one-half hours per week for cleaning and accidental stoppages; (b) an allowance for doffing time, as follows: For each pair of mules of less than 720 spindles, five minutes; for each pair of mules of 720 spindles and less than 1,080, six minutes; for each pair of mules of 1,080 spindles and upward, seven minutes; number of doffings reckoned off one mule only; (c) an allowance of $2\frac{1}{2}$ per cent. for breakage.

"Clause No. 2. Mule indicators to be so constructed as to allow $2\frac{1}{2}$ per cent. for breakage.

"Clause No. 3. The above list of total earnings does not apply to firms using a low quality of cotton and waste, requiring more piecers, or to firms using a superior quality of cotton, requiring fewer piecers. In such cases, if any dispute should arise, arrangements must be made with the consent of the two committees.

"Clause No. 4. In case of a dispute arising on account of quick speed, or from bad work, the question shall be referred to the two secretaries, and in event of their failure to agree the dispute shall be referred to the two committees for a decision.

"Clause No. 5. If spinning number 24 and under, 24 cents to be added to the list of total earnings; but in cases of mules running three draws in fifty seconds, slower, 24 cents to be added for counts from numbers 24 to 21, inclusive; 48 cents for number 20 and all counts below.

"Clause No. 6. The above list of total earnings does not apply to double-decked mules, to odd mules, or to hand mules."

The conditions regulating extra work are as follows:

(1) If no bobbin-carrier is employed, 3 cents per 100 pounds of yarn weighed in to be added to the list; but if a hoist is in use and no bobbin-carrier employed, 2 cents per 100 pounds to be allowed.

(2) If minder is employed on double-decked mules, 36 cents per week to be added to total earnings.

(3) If minder is spinning from double rovings, 24 cents per week to be added to the list; this to apply where the mules are adapted with tin guides for double rovings, though not always working double rovings.

(4) Breaking out rovings or turning strings: (a) For mules up to 432 spindles, inclusive, 24 cents per pair of mules to be allowed; (b) for mules upward of 432 spindles, 1 cent per 12 spindles per pair to be added; (c) for breaking out double rovings, double the above rates to be paid.

(5) Tubing to be left for individual arrangement.

(6) For resetting or leveling up mules, minder, if he is required and in attendance, to be paid at the following rate: (a) For mules up to 672

spindles, inclusive, 10 cents per hour; (b) for mules from 684 to 912 spindles, inclusive, 11 cents per hour; (c) all larger mules, 12 cents per hour.

Piecers, if required and in attendance, to be paid their usual wages by the employer, an equivalent for the yarn spun on one mule while the other is being reset."

The following exhibit shows the manner in which the calculations from the list and conditions are made. Let us take the example of a pair of mules spinning number 32 twist, 3 draws in 48 seconds, 63-inch stretch, 2,000 spindles:

One week of factory time, in hours.....	56½
Less for accidents, etc., in hours.....	1½
Making spinning time, in hours.....	55
Which equals, in minutes.....	3,300
Deduct for doffing nine times off each mule, at six minutes each, minutes.....	54
Deduct for breakage 2½ per cent., which equals, in minutes.....	81
Total deduction, in minutes.....	135
Leaving, in minutes.....	3,165
Which equals, in seconds.....	189,900

$$\frac{189,900 \text{ seconds} \times 63 \text{ inches stretch} \times 3 \text{ draws} \times 2,000 \text{ spindles}}{840 \text{ yards} \times 36 \text{ inches} \times 48 \text{ seconds}} = 49,453 \text{ hanks.}$$

The list price is.....	\$14.50000
Add for two seconds extra speed.....	.29000
Making the wages for 49,453 hanks.....	14.79000
Or for 1,000 hanks.....	.29910
Deduct 10 per cent., which is.....	.02991
Leaving as net wages for 1,000 hanks.....	.26919

Below is shown the standard prices paid per 1,000 hanks for spinning medium and fine counts of twist, weft, and reeled yarn or bastard twist on self-acting mules in Bolton, England, and neighborhood. The Bolton district to which these prices apply comprises Atherton, Bolton, Chorley, Reddish, and Tyldesley. The list is based on self-acting mules of 420 spindles, subject to a reduction of one-half of 1 per cent. for each additional 12 spindles. But from the whole list of prices there is now (July, 1885), a reduction of 5 per cent.

COST OF SPINNING TWIST IN THE BOLTON DISTRICT, ENGLAND.

Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.
32.....	\$0.3364	55 and 56....	\$0.4452	77 and 78.....	\$0.5256	99 and 100....	\$0.5944
33 and 34.....	.3468	57 and 58.....	.4532	79 and 80.....	.5322	101 and 102....	.6010
35 and 36.....	.3570	59 and 60.....	.4610	81 and 82.....	.5388	103 and 104....	.6066
37 and 38.....	.3666	61 and 62.....	.4684	83 and 84.....	.5454	105 and 106....	.6122
39 and 40.....	.3764	63 and 64.....	.4776	85 and 86.....	.5518	107 and 108....	.6182
41 and 42.....	.3856	65 and 66.....	.4834	87 and 88.....	.5568	109 and 110....	.6240
43 and 44.....	.3946	67 and 68.....	.4906	89 and 90.....	.5646	111 and 112....	.6296
45 and 46.....	.4034	69 and 70.....	.4978	91 and 92.....	.5708	113 and 114....	.6354
47 and 48.....	.4142	71 and 72.....	.5048	93 and 94.....	.5770	115 and 116....	.6408
49 and 50.....	.4206	73 and 74.....	.5118	95 and 96.....	.5830	117 and 118....	.6070
51 and 52.....	.4286	75 and 76.....	.5186	97 and 98.....	.5890	119 and 120....	.6518
53 and 54.....	.4372						

COST OF SPINNING WEFT IN THE BOLTON DISTRICT, ENGLAND.

Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.
36.....	\$0. 3150	57 and 58.....	\$0. 4000	79 and 80.....	\$0. 4086	101 and 102.....	\$0. 5380
37 and 38.....	.8236	59 and 60.....	.4086	81 and 82.....	.4754	103 and 104.....	.5352
39 and 40.....	.8212	61 and 62.....	.4132	83 and 84.....	.4812	105 and 106.....	.5400
41 and 42.....	.3402	63 and 64.....	.4200	85 and 86.....	.4868	107 and 108.....	.8454
43 and 44.....	.3408	65 and 66.....	.4268	87 and 88.....	.4924	109 and 110.....	.5500
45 and 46.....	.3416	67 and 68.....	.4328	89 and 90.....	.4980	111 and 112.....	.5550
47 and 48.....	.3636	69 and 70.....	.4392	91 and 92.....	.5036	113 and 114.....	.5604
49 and 50.....	.3712	71 and 72.....	.4454	93 and 94.....	.5090	115 and 116.....	.5652
51 and 52.....	.3784	73 and 74.....	.4516	95 and 96.....	.5144	117 and 118.....	.5700
53 and 54.....	.3852	75 and 76.....	.4576	97 and 98.....	.5196	119 and 120.....	.5758
55 and 56.....	.3928	77 and 78.....	.4636	99 and 100.....	.5252		

COST OF SPINNING REELED YARN OR BASTARD TWIST IN THE BOLTON DISTRICT, ENGLAND.

Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.	Numbers.	Wages for 1,000 hanks.
34.....	\$0. 3364	55 and 56.....	\$0. 4190	77 and 78.....	\$0. 4946	99 and 100.....	\$0. 5600
35 and 36.....	.3380	57 and 58.....	.4266	79 and 80.....	.5010	101 and 102.....	.5654
37 and 38.....	.3450	59 and 60.....	.4338	81 and 82.....	.5070	103 and 104.....	.5708
39 and 40.....	.3542	61 and 62.....	.4404	83 and 84.....	.5132	105 and 106.....	.5762
41 and 42.....	.3628	63 and 64.....	.4480	85 and 86.....	.5192	107 and 108.....	.5818
43 and 44.....	.3712	65 and 66.....	.4550	87 and 88.....	.5246	109 and 110.....	.5870
45 and 46.....	.3796	67 and 68.....	.4616	89 and 90.....	.5312	111 and 112.....	.5922
47 and 48.....	.3888	69 and 70.....	.4684	91 and 92.....	.5372	113 and 114.....	.5974
49 and 50.....	.3960	71 and 72.....	.4750	93 and 94.....	.5430	115 and 116.....	.6030
51 and 52.....	.4034	73 and 74.....	.4816	95 and 96.....	.5486	117 and 118.....	.6084
53 and 54.....	.4112	75 and 76.....	.4880	97 and 98.....	.5542	119 and 120.....	.6132

The standard is \$0.4208 per 1,000 hanks for number 50 twist, with 25.5 revolutions per spindle per inch of yarn on mules of 420 spindles each, one-half of 1 per cent. being deducted for each additional 12 spindles up to 800. Mules of $1\frac{1}{4}$ -inch gauge spindles and over are considered "twist mules," and discount up to 800 spindles only. All counts below number 32 twist are paid the same price per 1,000 hanks.

The standard revolutions per spindle per inch of yarn for number 50 weft is 25.5, and is calculated in proportion to the price paid for number 50 twist on mules of the same size, one-half of 1 per cent. being deducted for each additional 12 spindles up to 900 only. Mules of $1\frac{1}{4}$ -inch gauge spindles and below are considered "weft mules," and discount up to 900 spindles. All counts below number 36 weft are paid the same price per 1,000 hanks. An additional 5 per cent. is allowed above the list price when spinning "pin-cops wefts" on all mules over $1\frac{1}{4}$ -inch gauge spindles.

The revolutions per spindle per inch of yarn for number 50 bastard twist, and the price for the same, are the medium between twist and weft of the same counts on mules of the same size, one-half of 1 per cent. being deducted for each additional 12 spindles up to 800 twist mules and 900 weft mules. All counts below number 34 bastard twist are paid the same price per 1,000 hanks.

There is a discount from these lists for every 12 spindles above 420. This is shown in the following table:

DISCOUNT FROM THE BOLTON LISTS.

Spindles.	Discount (per cent.)	Spindles.	Discount (per cent.)	Spindles.	Discount (per cent.)
432.....	5.0	588.....	7.0	744.....	13.5
444.....	1.0	600.....	7.5	756.....	14.0
456.....	1.5	612.....	8.0	768.....	14.5
468.....	2.0	624.....	8.5	780.....	15.0
480.....	2.5	636.....	9.0	792.....	15.5
492.....	3.0	648.....	9.5	804.....	16.0
504.....	3.5	660.....	10.0	816.....	16.5
516.....	4.0	672.....	10.5	828.....	17.0
528.....	4.5	684.....	11.0	840.....	17.5
540.....	5.0	696.....	11.5	852.....	18.0
552.....	5.5	708.....	12.0	864.....	18.5
564.....	6.0	720.....	12.5	876.....	19.0
576.....	6.5	732.....	13.0	888.....	19.5

The standard speed of the spindle for number 50 is 4,700 revolutions per minute, including backing off and putting up. If running below the standard speed for any count, the spinner receives two-thirds difference in price extra for loss entailed. If working above the standard speed, the spinner is paid the same price per 1,000 hanks as if working only standard speed.

The revolutions per spindle per inch of yarn on self-acting mules is shown in the next table, the standard for number 50 twist being 25.5, and for number 50 weft 22.5.

REVOLUTIONS PER SPINDLE PER INCH OF YARN ON SELF-ACTING MULES.

Numbers.	Twist.	Reeled yarn.	Weft.	Numbers.	Twist.	Reeled yarn.	Weft.
30.....	19.75	18.58	17.42	66.....	29.29	27.58	25.87
32.....	20.40	19.20	18.00	68.....	29.73	27.98	26.23
34.....	21.02	19.78	18.55	70.....	30.17	28.39	26.63
36.....	21.64	20.36	19.09	72.....	30.60	28.80	27.00
38.....	22.28	20.92	19.61	74.....	31.02	29.19	27.37
40.....	22.81	21.47	20.13	76.....	31.44	29.59	27.74
42.....	23.37	22.00	20.62	78.....	31.85	29.97	28.10
44.....	23.92	22.51	21.10	80.....	32.25	30.36	28.47
46.....	24.45	23.01	21.58	82.....	32.65	30.73	28.81
48.....	24.98	23.51	22.04	84.....	33.05	31.10	29.16
50.....	25.50	24.00	22.50	86.....	33.44	31.47	29.50
52.....	26.00	24.47	22.94	88.....	33.83	31.83	29.84
54.....	26.50	24.94	23.38	90.....	34.21	32.19	30.18
56.....	26.98	25.39	23.81	92.....	34.59	32.55	30.52
58.....	27.46	25.84	24.23	94.....	34.96	32.90	30.85
60.....	27.93	26.28	24.64	96.....	35.33	33.25	31.17
62.....	28.39	26.72	25.05	98.....	35.70	33.60	31.50
64.....	28.85	27.15	25.45	100.....	36.06	33.94	31.83

When working mules with single and double speeds an additional 5 per cent. is allowed. An additional 5 per cent. is allowed also when spinning on double-decked mules, but they discount for total number of spindles as if single mules. One cent per 1,000 spindles each mule is allowed for large cops. For pin cops one-fourth cent per pound of yarn is paid, weight of tubes being included and weighed in as yarn. The

above prices are extra for spinning any count with tubes up to number 100 twist, reeled yarn or weft, 6 cents per doffing being added for every ten hanks of fine numbers above 100. Full-length tubes are paid for at double price. The prices paid for stripping creels on mules containing 500 spindles or less is 72 cents per pair. For mules with over 500 spindles 6 cents is allowed for each additional hundred. The prices on all counts are calculated in proportion to the revolutions per spindle per inch required in the yarn, all counts being paid for according to what they are set. No deductions are made from the foregoing prices for gas, broken bobbins, or for carriage of goods. The proportion of the total prices per 1,000 hanks to piecers is not so large in Bolton as in the Oldham district. In Bolton, as in Oldham, the spinner draws the money for yarn spun and pays his piecers and creeler, side piecers, youth, receiving about \$2.25 per week, and little piecers or creelers \$2.15 per week, of fifty-six and a half hours.

WAGES PER HOUR IN IRON MOULDING IN GREAT BRITAIN IN 1885.

Locality.	Wages per hour.			Rate for overtime.
	High- est.	Stand- ard.	Lowest.	
Acerington	\$0. 150	\$0. 150	\$0. 150	Actual time to actual time and one-fourth.
Banbury .....		.124	.106	Actual time to actual time and one-fourth.
Barnsley .....		.150	.124	Actual time and one-fourth.
Barrow .....	.168	{ .141 } .15	.141	Actual time and one-fourth.
Belfast .....	.168	.141	.124	Actual time and one-fourth.
Bilston .....	.123	.123	.115	Actual time to actual time and five-eighths.
Birkenhead .....	.168	.159	.159	Actual time and one-fourth.
Birmingham .....	.159	.159	.124	Actual time and one-eighth.
Blackburn .....	.168	.150	.106	Actual time and one-fourth.
Bolton .....	.168	.159	.141	Actual time and one-fourth.
Bradford .....		.141	.133	Actual time and one-eighth to actual time and one-fourth.
Bristol .....	.141	.133	.124	Actual time and one-eighth.
Burnley .....	.159	.150	.124	Actual time to actual time and one-fourth.
Burton .....		.141	.133	Actual time to actual time and one-fourth.
Bury .....	.150	.150	.106	Actual time and one-fourth.
Butterley .....	.141	.133	.111	Actual time to actual time and one-fourth.
Cardiff .....	.159	.141	.930	Actual time to actual time and one-fourth.
Carlisle .....		.133	.970	Actual time to actual time and one-fourth.
Chatham .....	.159	.146	.133	Actual time to actual time and one-fourth.
Chelsea .....	.199	.168	.139	Actual time and one-fourth.
Chester .....	.159	.150	.106	Actual time and one-fourth.
Chesterfield .....	.150	.133	.120	Actual time and one-fourth.
Cleckheaton .....	.141	.133	.115	Actual time to actual time and one-fourth.
Cork .....	.133	.124	.106	Actual time to actual time and one-fourth.
Crewe .....	.168	.141	.124	Actual time and one-fourth.
Darlington .....		.133	.128	Actual time and one-fourth.
Dartford .....	.177	.159	.146	Actual time and one-fourth to actual time and one-half.
Darwen Over .....		.159		Actual time and one-fourth.
Derby .....	.150	.141	.133	Actual time to actual time and one-fourth.
Devonport .....	.194	.159	.106	Actual time and one-fourth.
Dewsbury .....		.133	.124	Actual time.
Dublin .....		.150	.124	Actual time and one-fourth.
Dudley .....	.155	.133	.890	Actual time and one-fourth.
Dumfries .....		.120		Actual time and one-fourth.
East London .....	.185	.168	.150	Actual time and one-fourth.
Exeter .....	.133		.890	Thirteen cents per hour to actual time.
Gainsborough .....		.133	.124	Actual time and one-fourth.
Gloucester .....	.133		.115	Actual time and one-fourth to actual time and one-half.
Grantham .....		.128	.890	Actual time to actual time and one-fourth.
Greenwich .....		.168	.133	Actual time and one-fourth.
Halifax .....		.150	.124	Actual time to actual time and one-fourth.

WAGES PER HOUR IN IRON MOULDING IN GREAT BRITAIN IN 1885—Concluded.

Locality.	Wages per hour.			Rate for overtime.
	High- est.	Stand- ard.	Lowest.	
Hanley	£0. 141	£0. 141	£0. 124	Actual time and one-fourth.
Hartlepool .....	. 163		. 128	Actual time and one-fourth.
Haslingden .....	. 168	{ . 159 . 150 }	. 124	Actual time to actual time and one-fourth.
Heywood .....	. 159	. 159	. 150	Actual time and one-fourth.
Huddersfield .....	. 150	. 141	. 115	Actual time and one-fourth.
Hull .....	. 199	. 150	. 106	Actual time and one-fourth to actual time and one-half.
Hyde .....	. 168	. 159	. 150	20 cents to 32 cents per hour.
Ipswich .....		. 133	. 970	Actual time to actual time and one-fourth.
Lancaster .....	. 159	. 141	. 133	Actual time to actual time and one-fourth.
Leamington .....	. 133	. 133	. 106	Actual time to actual time and one-fourth.
Leeds .....	. 141	. 133	. 106	Actual time to actual time and one-fourth.
Leicester .....	. 180	. 141	. 120	Actual time.
Leigh .....	. 155	. 150		Actual time and one-fourth.
Lincoln .....	. 141		. 102	Actual time and one-fourth.
Little Bolton .....	. 168	{ . 159 . 150 }	. 141	Actual time and one-fourth.
Liverpool .....	. 177	. 159	. 133	16 cents to 20 cents per hour.
Llanelli .....	. 141	. 124	. 800	Actual time to actual time and one-fourth.
London .....	. 177	. 108	. 155	Actual time and one-fourth.
Macclesfield .....		. 150	. 106	Actual time to actual time and one-eighth.
Maldstone .....	. 159	. 141	. 106	Actual time to actual time and one-fourth.
Manchester .....	. 168	. 108	. 159	Actual time and one-fourth.
Mansfield .....		. 141	. 124	Actual time to actual time and one-fourth.
Middlesbrough .....	. 148	. 133	. 133	Actual time and one-fourth.
Newcastle .....	. 177		. 970	Actual time and one-fourth.
Newport .....		. 133	. 890	Actual time and one-half.
Northampton .....	. 141	. 133	. 106	Actual time to actual time and one-fourth.
Nottingham .....	. 159	. 150	. 124	Actual time and one-fourth.
Oldham .....	. 168	{ . 159 . 150 }	. 141	{ Actual time and one-eighth to actual time and one-half.
Portsmouth .....	. 194	. 150	. 133	Actual time to actual time and one-fourth.
Preston .....	. 168	. 150	. 141	
Reading .....	. 159	. 133	. 970	Actual time and one-eighth to actual time and one-fourth.
Retford .....	. 141	. 133	. 106	Actual time to actual time and one-fourth.
Rochdale .....		. 150	. 124	Actual time to actual time and one-fourth.
Rotherham .....	. 159		. 106	Actual time and one-fourth.
Salford .....	. 177	. 168	. 141	Actual time and one-fourth.
St. Helen's .....	. 159	. 159	. 159	Actual time and one-fourth.
Sheffield .....	. 168	. 159	. 159	Actual time and one-fourth.
Smithwick .....	. 168	. 159	. 141	Actual time and one-fourth.
Southampton .....	. 168		. 890	Actual time to actual time and one-fourth.
Sowerby Bridge .....	. 168	. 150	. 890	Actual time and one-fourth.
Stalybridge .....		. 159	. 124	Actual time and one-fourth.
Stockport .....		. 159	. 124	Actual time and one-fourth.
Stockton .....	. 155	. 133	. 124	Actual time and one-fourth.
Stourbridge .....	. 159	{ . 141 . 133 }	. 106	Actual time and one-fourth.
Sunderland .....	. 185		. 133	Actual time and one-fourth.
Swansea .....	. 150		. 106	Actual time to actual time and one-eighth.
Swindon .....	. 155		. 106	Actual time and one-fourth.
Todmorden .....		. 150	. 141	Actual time to actual time and one-fourth.
Trowbridge .....		. 133	. 890	Actual time to actual time and one-fourth.
Wakefield .....	. 145	. 141	. 133	Actual time and one-fourth.
Warrington .....	. 168	. 159	. 106	Actual time and one-fourth.
Wednesbury .....	. 141	. 133	. 106	Actual time to actual time and one-fourth.
Widnes .....	. 168	. 159	. 159	18 cents per hour.
Wigan .....	. 168	. 159	. 159	18 cents per hour.
Woolwich .....	. 185	. 159	. 133	Actual time and one-fourth to one-half.
Worcester .....		. 141	. 106	Actual time and one-fourth.
Workington .....	. 177	. 139	. 115	Actual time.
York .....		. 133	. 115	Actual time to actual time and one-fourth.

WAGES PER HOUR IN THE MANUFACTURE OF MACHINERY IN BIRMINGHAM, ENGLAND, IN 1885.

Occupations.	Wages per hour (cents).	Occupations.	Wages per hour (cents).
Air-furnace men	12	Foremen, working	18 to 30
Anglesmiths	12 to 16	Grinders and glaziers	12 to 14
Apprentices	4 to 9	Holders-up	9 to 10
Boiler makers	13 to 14	Iron moulders	12 to 16
Borers	13 to 14	Laborers	to 8
Brass finishers	12 to 13	Millwrights	12 to 15
Brass moulders	14 to 15½	Painters	9 to 10
Carpenters	13	Pattern makers	13 to 16
Carters	8 to 9	Planers	10 to 12
Coppersmiths	13 to 15	Platers	14 to 17
Core makers and dressers (men)	11 to 12	Riveters	12 to 13
Core makers and dressers (lads and boys)	4 to 9	Rivet heaters (youth and boys)	4 to 5
Draughtsmen	25 to 57	Shapers	12 to 13
Drillers	9 to 10	Screwers	8 to 9
Engineers	12 to 14	Slotters	10 to 12
Engine fitters	12 to 14	Smiths' strikers	9 to 10
Firemen	9	Steam-hammer men	23 to 25
Fitters	14 to 16	Stokers	8 to 9
		Tinsmiths	12 to 13

DAILY WAGES, ORDINARY, MAXIMUM, AND MINIMUM, IN PARIS, FRANCE.

Occupations.	1844.			1853.			1860.		
	Ord.	Max.	Min.	Ord.	Max.	Min.	Ord.	Max.	Min.
Bakers	\$0 77								
Blacksmiths	48			\$0 70	\$0 80	\$0 65	\$0 82	\$1 06	\$0 67
Butchers	56								
Carpenters	77			96			96		
Glaziers				77		68			
Hatters	58			68					
Joiners	58			77		63	84	91	68
Locksmiths	68			87	1 06	48	91	1 16	68
Masons				91		87			
Metal workers				96	1 06	58			
Painters				77					
Plumbers				77					
Printers	77			96	1 16	68	1 06	1 35	67
Shoemakers	48			58		96	48		
Stonecutters	77					91	87		
Tailors				58		68	58	96	77
Tanners	68			77		68	87	96	67

Occupations.	1871.			1875.			1881.			1882.		
	Ord.	Max.	Min.	Ord.	Max.	Min.	Ord.	Max.	Min.	Ord.	Max.	Min.
Bakers	\$1 27	\$2 04	\$0 46	\$1 28	\$1 98	\$0 65	\$1 35	\$1 93	\$1 16	\$1 44	\$2 24	\$1 22
Blacksmiths	96	1 06	82	97	1 06	77	1 16	1 35	1 06	1 16	1 35	1 06
Browers	82	96	67	82	96	67	96	1 16	77	96	1 16	77
Butchers				1 16	1 35	96	1 16	1 35	96	1 16	1 35	96
Carpenters	1 16	1 35	1 06	1 16	1 25	1 06	1 51	1 84	1 49	1 74	1 93	1 54
Glaziers	1 06	1 06	96	1 01	1 06	96	1 06	1 09	96	1 06	1 16	1 01
Hatters	1 25	1 74	77	1 25	1 73	77	1 25	1 74	77	1 25	1 74	77
Joiners	96	1 06	87	97	1 06	87	1 35	1 54	1 16	1 35	1 54	1 33
Locksmiths	87	1 16	77	87	1 16	77	1 25	1 35	1 16	1 25	1 35	1 16
Masons	96	1 06	82	97	1 06	82	1 45	1 54	1 35	1 54	1 74	1 35
Metal workers	1 16	1 54	77	1 16	1 35	1 06	1 35	1 74	1 16	1 35	1 74	1 16
Painters	1 16	1 16	96	1 16	1 25	97	1 35	1 45	1 16	1 35	1 46	1 16
Plumbers				1 16	1 25	1 06	1 16	1 35	1 06	1 16	1 35	1 06
Printers	1 16	1 25	1 06	1 16	1 25	1 06	1 25	1 73	1 06	1 25	1 74	1 06
Shoemakers	67	1 16	48	67	1 16	48	68	1 16	48	67	1 16	48
Stonecutters	1 16	1 35	1 06	1 16	1 35	96	1 54	2 51	1 35	2 02	2 32	1 54
Tailors	96	1 54	58	60	78	48	96	1 54	58	96	1 54	58
Tanners	96	1 35	87	96	1 16	77	96	1 16	77	96	1 16	77

DAILY WAGES, ORDINARY, MAXIMUM, AND MINIMUM, IN PRINCIPAL CITIES OF FRANCE, NOT INCLUDING PARIS.

Occupations.	1853.			1857.			1871.		
	Ord.	Max.	Min.	Ord.	Max.	Min.	Ord.	Max.	Min.
Bakers	\$0 37	\$0 45	\$0 31	\$0 41	\$0 51	\$0 35	\$0 56	\$0 68	\$0 48
Blacksmiths	37	45	32	43	50	35	54	64	44
Brewers	42	53	35	47	59	39	55	73	46
Butchers	38	40	27	38	45	31	50	61	42
Carpenters	43	51	37	49	60	43	64	77	55
Glassiers	40	48	32	48	53	36	56	67	50
Hatters	41	53	33	46	56	38	58	75	46
Joiners	39	47	33	44	55	38	55	69	46
Locksmiths	42	51	33	47	59	38	58	73	45
Masons	40	48	34	46	55	39	59	70	50
Metal workers	49	62	39	55	73	46	67	86	55
Painters	43						60	72	47
Plumbers	43						60	75	49
Printers	46	59	37	51	67	42	68	89	48
Shoemakers	32	43	25	34	50	29	48	65	38
Stonecutters	46	59	38	53	77	45	67	83	56
Tailors	38	48	30	42	54	34	55	72	42
Tanners	39	47	32	44	54	37	53	66	44

Occupations.	1875.			1881.			1882.		
	Ord.	Max.	Min.	Ord.	Max.	Min.	Ord.	Max.	Min.
Bakers	\$0 64	\$0 77	\$0 52	\$0 68	\$0 80	\$0 56	\$0 68	\$0 80	\$0 56
Blacksmiths	57	71	48	62	76	54	68	77	53
Brewers	62	79	52	66	80	57	66	80	57
Butchers	53	64	46	60	73	50	60	73	51
Carpenters	70	85	58	75	90	64	76	90	64
Glassiers	57	69	48	61	73	52	62	74	53
Hatters	61	82	49	67	84	54	69	84	55
Joiners	63	75	52	67	81	56	68	82	58
Locksmiths	63	79	52	67	83	56	68	84	57
Masons	68	76	53	68	82	58	70	87	60
Metal workers	72	85	60	75	94	63	76	95	65
Painters	65	79	55	69	87	58	70	88	59
Plumbers	64	80	54	68	84	58	68	85	60
Printers	66	89	53	72	91	59	74	91	59
Shoemakers	53	69	41	59	76	48	59	76	48
Stonecutters	71	92	60	74	92	64	76	94	66
Tailors	60	78	48	62	79	50	63	80	51
Tanners	58	74	48	68	77	53	64	78	53

EMPLOYÉS AND AVERAGE FORTNIGHTLY WAGES IN SPINNING

Year.	Foremen.		Spinners.		Tiers, winders cylinder cov- ers, etc.		Care takers and winders.		Packers, oil- ers, firemen, watchmen, porters, la- borers, etc.		Carding de- partment.	
	No.	Fort- nightly wages.	No.	Fort- nightly wages.	No.	Fort- nightly wages.	No.	Fort- nightly wages.	No.	Fort- nightly wages.	No.	Fort- nightly wages.
1855.....	3	\$8 50	45	\$7 47	110	\$1 89	34	\$2 69	28	\$4 08	55	\$2 98
1856.....	4	8 38	50	7 50	124	2 02	36	2 70	30	4 06	60	3 23
1857.....	4	8 60	50	7 68	123	2 12	35	2 81	32	4 19	64	3 58
1858.....	4	8 85	49	7 37	114	2 17	34	2 80	30	4 39	61	3 58
1859.....	4	9 00	49	7 24	111	2 27	35	2 84	29	4 39	54	3 84
1860.....	4	9 00	49	7 57	114	2 52	39	2 97	30	4 65	60	3 56
1861.....	4	9 04	49	8 04	118	2 63	40	3 10	30	4 54	61	3 91
1862.....	4	9 18	49	7 94	118	2 59	42	3 08	27	4 69	64	3 94
1863.....	5	8 90	49	7 14	113	2 49	45	3 02	25	4 81	60	3 83
1864.....	6	8 86	45	7 07	117	2 72	52	3 25	25	5 00	69	3 95
1865.....	7	9 04	49	7 02	119	2 90	53	3 33	28	5 17	66	3 84
1866.....	9	9 16	41	7 43	125	3 10	52	3 56	26	5 52	61	4 10
1867.....	9	9 71	40	8 00	130	3 21	52	3 69	28	5 52	60	4 38
1868.....	9	9 87	41	8 13	129	3 48	54	3 74	32	5 55	63	4 48
1869.....	9	10 23	40	8 24	116	3 60	60	3 80	37	5 62	66	4 73
1870.....	9	10 55	36	8 15	107	3 60	53	3 83	61	5 36	67	4 00
1871.....	9	10 00	28	6 89	80	3 20	52	3 26	55	5 50	60	5 20
1872.....	9	11 10	30	9 08	84	4 27	55	4 39	66	6 00	70	5 41
1873.....	9	11 75	30	9 24	81	4 69	58	4 55	60	6 05	70	5 47
1874.....	10	11 78	32	9 37	85	4 87	57	4 82	60	6 49	70	5 83
1875.....	10	12 26	35	9 30	94	4 88	56	4 98	60	6 67	65	6 12
1876.....	10	12 60	35	9 46	83	5 42	60	4 99	64	6 67	70	6 24
1877.....	12	12 82	37	9 58	88	5 49	65	5 06	60	6 95	80	6 43
1878.....	13	12 74	40	9 24	101	5 30	66	5 21	63	6 84	85	6 05
1879.....	12	12 60	42	8 92	106	5 20	69	5 18	61	7 00	87	6 29
1880.....	12	12 16	43	9 82	106	5 20	70	5 20	65	6 82	89	6 24
1881.....	12	12 24	43	8 88	113	4 82	70	5 20	78	6 46	88	6 26
1882.....	12	12 44	41	8 78	119	4 80	69	5 10	78	6 34	83	6 46
1883.....	11	12 97	41	8 74	120	4 94	70	5 20	80	6 46	80	6 44
1884.....	9½	13 66	41	8 56	123½	4 87	71½	5 20	80½	6 56	81	6 39
1885.....	9	14 17	41	8 48	122	4 85	70	5 30	82	6 58	85	

^a Introduced ring spinning this year, for which women and girls only are employed. This accounts for gradual decrease of wages for spinners since.

AND CARDING COTTON IN THE RHINE DISTRICT OF GERMANY, 1855-85.

Machinists, carpenters, joiners, assistants.		Masons.		Total employees.	Fort-nightly wages for all employees.	Days of labor.	Amount of annual wages.	Pounds of yarn spun.	Spindles.	Year.
No.	Fort-nightly wages.	No.	Fort-nightly wages.							
46	\$6 10	5	\$5 47	326	\$3 79	306	\$33, 144 17	602, 858. 65	21, 600	1855
56	6 49	12	4 88	373	4 01	315	40, 269 66	822, 368. 58	21, 300	1856
48	6 54	12	5 28	369	4 09	306	39, 323 36	867, 940. 87	24, 300	1857
47	6 83	9	5 65	347	4 20	306	37, 903 22	837, 824. 90	24, 300	1858
50	6 51	13	5 40	345	4 26	384	38, 192 28	823, 403. 13	24, 312	1859
63	7 01	19	5 56	378	4 58	295	44, 842 01	874, 092. 89	24, 312	1860
56	6 72	16	5 75	374	4 57	304	44, 579 17	1, 019, 697. 03	24, 312	1861
50	7 09	26	5 21	389	4 61	305	46, 556 11	1, 044, 271. 91	24, 312	1862
50	7 00	18	5 20	365	4 37	308	41, 437 29	961, 865. 34	24, 300	1863
57	7 10	28	5 30	399	4 53	306	48, 960 88	1, 128, 660. 31	27, 200	1864
42	7 44	15	5 66	370	4 51	308	43, 429 35	1, 000, 437. 46	29, 025	1865
36	7 42	14	5 68	364	4 64	317	45, 504 58	1, 346, 853. 53	33, 150	1866
46	7 44	27	5 04	392	4 82	306	49, 219 33	1, 483, 200. 73	34, 644	1867
58	7 32	35	5 56	412	5 14	306	55, 028 38	1, 589, 797. 11	35, 340	1868
54	7 47	32	5 80	414	5 22	301	56, 168 71	1, 723, 381. 22	35, 340	1869
56	7 16	31	6 00	420	5 24	306	57, 305 29	1, 731, 486. 79	35, 140	1870
45	6 30	18	6 50	347	4 76	246	42, 941 18	1, 067, 709. 39	30, 230	1871
60	7 50	26	6 13	400	5 84	304	60, 075 84	1, 553, 880. 68	33, 107	1872
60	8 23	23	7 20	391	6 23	304	63, 295 93	1, 587, 482. 38	32, 670	1873
55	8 53	12	8 15	381	6 40	306	63, 295 93	1, 790, 217. 66	35, 363	1874
50	8 31	10	8 74	360	6 51	306	64, 281 26	2, 048, 256. 10	38, 340	1875
54	8 32	18	8 59	394	6 38	317	72, 584 63	2, 281, 182. 62	39, 562	1876
64	9 06	14	9 24	410	6 95	305	74, 108 00	2, 448, 242. 72	40, 192	1877
56	9 09	20	9 04	452	6 98	305	82, 049 24	2, 799, 771. 04	42, 972	1878
56	8 84	12	9 63	445	6 30	304	78, 710 13	3, 001, 996. 81	41, 307	1879
53	8 94	10	10 29	448	6 77	304	78, 862 96	3, 259, 654. 00	42, 807	1880
53	9 12	12	9 27	469	6 61	306	80, 472 17	3, 406, 049. 35	42, 372	1881
57	8 64	14	9 54	473	6 48	307	79, 675 10	3, 235, 634. 90	41, 720	1882
50	8 65	10	10 40	462	6 55	304	78, 719 13	3, 436, 490. 75	41, 635	1883
48	8 30	14	10 09	470	6 53	304	79, 899 15	3, 568, 190. 34	42, 211	1884
53	8 30	12	10 33	443	6 58	306	81, 096 42	3, 660, 305. 28	42, 401	1885

EMPLOYÉS AND AVERAGE FORTNIGHTLY WAGES IN WEAVING

Year.	Foremen and assistants.		Print weavers.		Moleakin weavers.		Winders, warpers, knitters, etc.		Brushers, sizers, and gluers.		Burlers, etc.	
	No.	Fort-nightly wages.	No.	Fort-nightly wages.	No.	Fort-nightly wages.	No.	Fort-nightly wages.	No.	Fort-nightly wages.	No.	Fort-nightly wages.
1855	3	\$7 05	81	\$2 17	37	\$3 72	40	\$2 51	20	\$6 39	10	\$1 72
1856	5	6 88	74	1 97	68	3 50	46	2 41	20	6 08	11	1 00
1857	5	7 23	68	2 10	101	3 78	41	2 49	19	5 08	5	2 32
1858	6	7 76	70	2 29	110	3 76	41	2 61	19	5 82	7	2 34
1859	7	8 16	130	3 11	114	3 70	38	3 04	18	6 20	11	3 02
1860	10	7 89	151	3 43	140	3 75	47	3 10	20	6 40	16	2 91
1861	13	8 43	170	3 76	191	3 60	61	3 20	24	6 60	21	2 71
1862	13	8 74	216	3 42	195	3 71	62	3 34	26	6 67	23	2 82
1863	13	8 93	222	3 27	199	3 65	68	2 95	22	6 38	23	3 08
1864	14	8 78	211	3 14	194	3 69	62	3 17	14	6 69	24	3 25
1865	14	9 00	222	3 30	140	3 69	60	3 10	11	6 80	19	3 60
1866	12	9 92	222	4 00	181	4 54	60	3 56	11	6 67	23	3 70
1867	14	9 63	209	3 94	235	4 42	64	3 60	10	6 96	22	4 00
1868	17	9 60	208	4 01	298	4 28	69	3 72	9	7 38	23	4 17
1869	18	9 83	224	4 03	332	4 32	76	3 80	10	7 00	25	4 17
1870	18	10 16	220	4 11	330	4 45	80	3 77	9	6 84	30	3 68
1871	17	9 01	216	3 67	248	3 55	63	2 96	7	6 60	26	2 92
1872	18	9 87	263	4 79	205	4 61	73	3 98	9	7 85	33	3 48
1873	19	10 84	269	5 01	330	4 84	83	4 15	9	8 09	42	3 40
1874	21	10 08	268	5 27	317	4 86	72	4 30	11	8 00	42	3 46
1875	21	10 54	273	5 40	347	5 10	72	4 41	12	8 00	42	3 41
1876	20	10 74	270	5 26	345	5 41	72	4 71	12	8 10	46	3 36
1877	18	11 25	372	5 43	360	5 32	71	4 71	13	8 45	50	3 17
1878	20	11 17	310	5 34	374	5 38	76	4 60	13	8 56	47	3 34
1879	30	10 22	392	5 34	384	5 30	85	4 73	14	8 95	51	3 59
1880	34	10 12	453	5 43	400	5 25	95	4 70	14	9 29	53	3 63
1881	36	10 18	500	5 55	401	5 55	96	4 78	15	9 06	57	3 69
1882	36	10 17	511	5 32	394	5 50	95	4 81	15	9 31	57	3 69
1883	37	10 00	527	5 28	400	5 67	102	4 85	16	9 49	58	3 70
1884	38	10 24	530	5 47	413	5 80	100	5 04	16	9 74	57	3 75
1885	38	10 35	478	5 40	474	5 60	101	4 92	16	9 74	57	3 84



COTTON GOODS IN THE RHINE DISTRICT OF GERMANY, 1855-85.

Driers, dressers, etc.		Oilers, fire- men, laborers, etc.		Total employés.	Fortnightly wages for all employés.	Days of labor.	Amount of annual wages.	Looms.	Pieces of cloth woven.	Year.
No.	Fort- nightly wages.	No.	Fort- nightly wages.							
8	\$1 97	5	\$4 25	204	\$3 05	306	\$16,197 55	240	12,431	1855
15	1 79	5	4 06	244	2 96	309	18,855 30	276	12,301	1856
17	2 38	6	5 00	252	3 30	306	21,633 22	305	15,059	1857
13	3 14	8	5 64	274	3 43	305	24,443 22	344	17,985	1858
14	2 93	11	6 06	343	3 65	305	32,622 01	461	26,556	1859
18	2 94	14	6 20	416	3 81	318	42,814 45	544	34,400	1850
20	3 37	16	6 00	516	3 90	304	52,320 48	694	43,891	1861
18	3 84	17	6 31	571	3 85	306	57,142 14	812	48,549	1862
19	3 85	19	6 14	580	3 70	301	55,739 80	823	57,279	1863
22	3 60	19	6 27	580	3 70	304	53,802 84	815	57,769	1864
18	3 48	19	6 00	502	3 75	307	48,886 64	736	45,085	1865
14	3 80	19	6 14	546	4 35	305	61,674 65	800	55,814	1866
10	4 01	20	6 15	694	4 36	304	67,804 89	859	60,640	1867
23	4 32	23	6 21	671	4 37	304	76,257 42	982	64,420	1868
32	4 17	25	6 40	743	4 41	305	85,168 71	1,100	73,336	1869
35	4 16	25	6 49	747	4 46	318	90,168 44	1,068	76,416	1870
25	4 12	23	5 81	625	3 77	301	61,248 45	914	46,679	1871
29	5 03	30	6 67	740	4 82	304	86,894 39	1,055	68,900	1872
28	5 05	33	6 77	818	5 00	304	105,850 60	1,154	75,670	1873
21	5 22	37	7 02	788	5 17	304	106,912 81	1,123	76,752	1874
24	5 06	39	7 13	830	5 33	305	114,926 97	1,141	82,359	1875
25	5 11	40	7 34	830	5 44	305	117,559 79	1,153	87,000	1876
24	5 25	43	7 47	850	5 47	304	120,857 61	1,149	89,235	1877
21	5 49	45	7 80	908	5 48	304	129,142 39	1,223	96,269	1878
19	5 56	42	7 88	1,017	5 49	304	144,978 09	1,390	113,094	1879
15	5 43	43	7 90	1,107	5 54	304	159,417 22	1,523	124,357	1880
1	6 09	45	7 89	1,122	5 67	317	176,224 22	1,621	142,476	1881
		47	7 63	1,155	5 58	306	167,681 61	1,650	134,113	1882
		48	8 01	1,108	5 60	304	172,958 29	1,708	137,550	1883
		49	7 78	1,203	5 78	304	180,562 74	1,761	135,223	1884
		49	7 86	1,213	5 80	303	183,018 64	1,779	139,397	1885

The influence of the cost of living in creating differences in the rates of wages should be considered in studying rates. When such influences are carefully observed it will be found that the variation in the rates of wages has but little weight in causing industrial depressions. Depressions disturb wages: wages do not create depressions; yet, as a remotely disturbing cause in the matter of prices, the variation in the rates of wages has a legitimate place. In Appendix B, page 411, there is presented some exceedingly valuable data relative to cost of living and wages of work people in different countries in Europe. The data there given, however, are not of sufficient extent, or do not cover a sufficient number of industries or of occupations in industries, to warrant their presentation in tabular form, or to admit of any very valuable summaries being drawn therefrom. For this reason the facts relative to cost of living are given as individual "budgets" of family expenses in detail, and of family earnings. As budgets they are exceedingly valuable and thoroughly interesting. The Bureau has no such collection of budgets for the United States, because it has been contemplated to make a sufficient collection of facts relative to cost of living to enable the Bureau to ascertain to what extent climate may affect the rate of wages. The budgets given, however, offer most excellent opportunity, tentatively, to observe the variation in expenses, the differences in diet, the habits of life, and other elements affecting the standard of living in the several countries from which they were obtained, and when it is stated that all such budgets are the result of living among the people furnishing the facts, eating and lodging with them, during the past year, their value is readily seen.^a

Speculative Railroad Building.—The statistics of railroad building, as heretofore given, show that just prior to periods of depression, especially the later periods, there has been an enormous extension of railroad building, a large part of which must be considered as speculative. When times are good and profits are large, those who are making the large profits seek to increase their wealth through speculative investments, and railroad building, since the days of the railroad, has been one of great attractiveness. The idea seems to take possession of men that by running a line into the wilderness business can be developed. The truth always comes at last, and the original investors pay heavy tuition bills, while those who buy up the railroad for a small percentage of its cost can afford to wait until business does develop. If the effect of this was only felt by those who lose directly the damage to the community would be of no consequence; but as these projected, speculative lines have become of greater extent, and vast areas of territory are to be covered, the consumption of material and of labor has been of like proportions. It has been estimated by an eminent authority,^b and the estimate has not been doubted, that, as

^a Such data were collected by Mr. Lee Meriwether, of Saint Louis, and by him kindly furnished to the Bureau of Labor.

^b Mr. Edward Atkinson,

suming the railroads built in 1882 to have cost, with the equipment, an average of \$30,000 per mile, more than 766,000 workmen of all classes must have been employed in connection with railroad building in that year, while in the building of the greatly-reduced mileage of 1883, with a reduction in wages, say, of 11 per cent., and of 16 $\frac{3}{4}$ per cent. in the cost per mile, only 250,000 persons were employed; a great army of 516,000 men employed in all the ramifications of railroad building thus being discharged from railroad work in one year. Two railroad projects alone resulted in the discharge of nearly 20,000 men, who had been brought from Southern Europe for the very purpose of building the roads, so when discharged they must to a large degree have served to increase the idle class. If the estimates given above of the number of men discharged through cessation of railroad building during the last few years are sound, and there is every reason to believe they are fairly so, the effect must have been serious indeed. Probably a very large proportion of the half million men found other employment; perhaps all found something to do, but at greatly reduced rates and in a desultory way, so that their consuming power must have been crippled to a very serious degree, and the crippling of the consuming power of a body no larger than that referred to has its influence, which, combined with other influences that tend to cripple consuming power, involves the industries of a community. In this subject of excessive railroad building is more clearly shown than in any other direction what is sometimes called the over-consumption of labor and material. The vast quantities of steel and iron and all other material necessary for the equipment of speculative roads have been over-consumed, or consumed to no immediate purpose, and when that over-consumption ceases because it has been illegitimate, legitimate production suffers correspondingly, and what then is called over-production can be denominated bad production; but, of course, along with what may be denominated an over-consumption of iron in the direction specified there must have been an over-consumption of labor, that is, a consumption of labor that resulted in no immediate benefit, but in positive, immediate harm, because such a large proportion of the over-consumed labor was brought in from abroad, and after the cessation of the over-consumption could not readily assimilate itself with the industries or work of a depressed community.

The crippled consuming power arising from the over-construction of railroads is only one influence, however, in the great grouping of influences which tend to produce the economic condition known as under-consumption.

Crippled Consuming Power or Under-consumption. Some of the causes which tend to cripple the consuming power of a large body of our people are remote indeed, and yet have a direct bearing upon the question in hand. Any disturbance in the monetary affairs of our country by which the purchasing power of money is decreased cripples the consuming power of the people, and when the

people, through apprehension or through real results, feel that their consuming power is crippled in ever so slight a degree, individual retrenchment begins, and corresponding stagnation follows. The same results are reached through a lowering of wages from any cause whatever. If manufacturers find their warehouses overstocked, there must take place a cessation of production or a lowering of wages, in either case the consuming power of the workers being crippled. Short crops will often, and usually, result in crippling the purchasing power of a large body of people; so, too, a very large crop which cannot be sold readily and at good prices reduces the consuming power of great communities. In mining and manufacturing districts where the truck system prevails there inevitably results a crippled consuming power of the operatives concerned. Some company stores, so-called, are of real benefit to the employes of the concerns owning such stores, but in order to be of benefit the company or the proprietors of the works must see that the stores are well stocked with supplies at the lowest market prices, and that the customers—their own employes—can purchase goods for cash at an advance simply large enough to pay expenses. An instance of such a store in Connecticut represents what is meant. A large manufacturing company in that state owns and runs a store for the benefit of its operatives. All goods are purchased for cash, at the lowest prices, and of the best qualities. The store is conducted on the basis of simply paying expenses and a very small percentage of margin over expenses, which margin is devoted to the support of a free library for the use of the operatives. The reverse of this is found in many mining districts of the country, where at the companies' stores the miners purchase their goods oftentimes at a higher price than they could purchase for elsewhere, and under duress; that is, in many localities employment depends partially upon taking goods out of the companies' stores. When wages are lowered this necessity becomes more apparent. Laws in several states have been passed aiming at the removal of the truck and company-store system, and in many places with success. There is yet, however, too much evasion of these laws, and much remains to be done in the future. Truck stores conducted in the interest of greed, and not of the men, are simply contributory influences in localities to the crippling of the consuming power of the work people.

One of the most serious causes tending to cripple the consumptive power of a people, and an influence which has been especially felt during the last four or five years, results from the cessation of railroad building. This matter, however, has been sufficiently treated under alleged causes of the depression and under the preceding heading.

The employment of contract labor of foreign importation, and rapid immigration generally, are features which have a positive influence in crippling consuming power. The influence of foreign immigration is best exhibited by the following table, showing the foreign population ten years of age and over, and the percentage engaged in agriculture at the last two census periods:

THE FOREIGN-BORN, TEN YEARS OF AGE AND OVER, ENGAGED IN AGRICULTURE, MANUFACTURES, ETC., IN 1870 AND 1880.

	1870.	1880.
Population, ten years of age and over.....	28,228,945	36,761,607
Foreign-born, ten years of age and over.....	6,807,887	6,491,301
Per cent. of foreign-born of total population (ten years and over)....	18.80+	17.65+
Foreign-born engaged in agriculture.....	619,108	812,829
Foreign-born engaged in manufactures, mining, etc.....	929,581	1,225,787
Total foreign-born engaged in agriculture, manufactures, etc.....	1,548,689	2,038,616
Per cent. of foreign-born engaged in agriculture of total foreign-born...	11.60+	12.52+
Per cent. of foreign-born engaged in manufactures of total foreign-born...	17.51+	18.88+
Per cent. of foreign-born engaged in agriculture, manufactures, mining, etc., of total foreign-born.....	29.17+	31.40+

This table offers some points of interest and of value at the present time. For instance, it will be seen that there were 812,829 of the foreign-born population engaged in agriculture. By the census of 1880 the whole number of people engaged in agriculture in the United States was 7,670,493. Into the total number then engaged in agriculture there had been absorbed but 812,829 foreign-born; that is, the foreign-born constituted 10.6 per cent. of the whole number employed in agriculture. The total number employed in the country in manufactures, mechanical, and mining industries was 3,837,112. Into this number had been absorbed 1,225,787 of the foreign-born, or 32 per cent. of the whole number engaged in such industries. It will be seen at once that the tendency of immigrants is to assimilate with our mechanical industries. This increases the supply of labor in comparison to the demand, lowers wages, contributes to whatever over-production exists, and cripples temporarily the consuming power of the whole. The progress of immigration has been very steady. This is best shown by the following table: *a*

IMMIGRATION INTO THE UNITED STATES.

Years.	Immi- grants.	Years.	Immi- grants.	Years.	Immi- grants.
1820.....	8,365	1844.....	78,615	<i>Fiscal year ending</i>	
1821.....	9,127	1845.....	114,371	<i>June 30—</i>	
1822.....	6,911	1846.....	154,416	1867.....	298,067
1823.....	6,354	1847.....	234,968	1868.....	282,189
1824.....	7,912	1848.....	226,527	1869.....	352,768
1825.....	10,199	1849.....	297,024	1870.....	387,208
1826.....	10,837	1850.....	369,980	1871.....	321,350
1827.....	18,875	1851.....	379,466	1872.....	404,806
1828.....	27,282	1852.....	371,003	1873.....	459,803
1829.....	22,620	1853.....	368,645	1874.....	812,839
1830.....	23,322	1854.....	427,833	1875.....	227,498
1831.....	22,633	1855.....	200,877	1876.....	169,986
1832.....	60,462	1856.....	195,857	1877.....	141,857
1833.....	58,640	1857.....	246,945	1878.....	138,469
1834.....	65,365	1858.....	119,501	1879.....	177,828
1835.....	45,874	1859.....	118,616	1880.....	457,257
1836.....	76,242	1860.....	150,237	1881.....	666,431
1837.....	79,340	1861.....	89,724	1882.....	788,992
1838.....	38,914	1862.....	89,007	1883.....	599,114
1839.....	68,069	1863.....	174,524	1884.....	518,502
1840.....	84,066	1864.....	193,195	1885.....	395,346
1841.....	80,289	1865.....	247,453		
1842.....	104,565	1866.....	167,757	Total.....	13,110,233
1843.....	52,496				

a From the Report of the Bureau of Statistics, Treasury Department, Washington, D. C.

In examining this table one sees that prior to each period of depression since 1837 there has been a large increase in immigration, and following the inception of the depression a sharp falling off. As times became prosperous after each period, immigration has set in and been followed up to an abnormal degree, and as soon as prosperity ceased temporarily the foreign mechanic or laborer has remained at home. This constant artificial augmentation of the number of laborers during prosperous years has had its full share in bringing in the following period of depression. The Forty-eighth Congress, at the second session, enacted a law aimed at the restriction and prevention of the importation of foreign labor under contract, which will be found in the chapter on remedies. The effect of this law cannot be appreciated, if it has any effect, until the country reaches a period of prosperity and those engaged in industrial enterprises, railroad-building, etc., seek to gain the greatest possible advantage during the season of prosperity. At the present time the law is practically inoperative, because no desire exists to break its provisions. The agents of the Bureau were not able to learn of a widespread importation of labor under contract. The cases which have occurred have been local, and although accompanied by many aggravating features such importations have not involved industries as a whole.

It is undoubtedly true that during the past fifty years immigration has been of inestimable value as an element in American industrial progress, but it cannot be said now, and probably not to any great extent in the future, that America is the home of the oppressed of all nations. This advertisement will undoubtedly be withdrawn, as well as that other, that there is room enough in the United States for all. This would not be so if this country was not one of the great family of nations now given to mechanical production. So long as it was largely an agricultural country the advertisement worked its good, for it brought wealth and labor and the wealth that comes of labor. Immigration in the future will continue to bring the same elements. The trouble comes in too rapid immigration. No one would probably consider for a moment the propriety of preventing immigration, but it is a subject for wise consideration whether or not it may not be regulated by equitable legal provisions. The present practice certainly results in the freest possible importation of labor, which profits by the prosperity of the country and aids materially in bringing about a condition where profits are not only reduced to a small margin but labor finds its power to consume crippled. Many instances might be given to illustrate the ill effects of the inopportune importation of foreign labor—the employment of Hungarians in mining districts, the padrone system in some localities, and other features, not only of foreign contract labor, but of the employment of foreign labor which comes freely on a certain kind of solicitation to induce it. So far as the investigation in hand indicates, the employment of foreign labor under contract to take the places of dissatisfied home

laborers has been a miserable failure for all parties concerned, except, perhaps, the parties imported. The contractor here has gained no advantage beyond a temporary one, and in a large proportion of cases has met with permanent disadvantage; the home laborer has been thrown out of employment or obliged to work on a crippled basis, and the consumer has not been able to secure products at any appreciable discount. To some extent the imported man has been benefited, for he has been able, by continuing his old style of living, to secure what were to him marvelous wages, and after saving a few hundred dollars felt that he could return to his old associations with a fund which, with little work, would enable him to live in comparative affluence. The conclusion is inevitable that the consuming power of many communities is crippled through rapid immigration, and whatever cripples communities in respect to their consuming capacity cripples all in any way affiliated with such communities.

The decrease of the public domain suitable for farming purposes has probably had something to do in preventing immigration in recent years. If so, it may be expected, with farming land at a higher price than formerly, that immigration will not be abnormal in the future; that is, immigrants will not come to this country in such large numbers as to influence in any material degree the stability of our industries. About three-fifths of the public domain already has passed out of the ownership of the Government, while the remaining two-fifths embraces a very large proportion of desert and mountain lands unfit for habitation.^a The reduction of the area of available public lands is, of course, only a contributory cause of the decrease of immigration, because, as has just been seen, the number of the foreign-born absorbed in the agricultural classes is only about two-thirds as large as that absorbed in mechanical industries. It is in this latter respect that the effects of immigration are felt. It is probable that this country could, with benefit to all its industries, absorb from 200,000 to 250,000 new-comers annually, but a much larger number coming in can be considered as one of the precursors of depressed business.

The population of the United States directly and indirectly dependent upon the success of agriculture is, in round numbers, 26,000,000. Anything that causes the agriculturists of the country to apprehend a cessation of exports of food products, cripples to a greater or less extent the consuming power of the population involved. Apprehension is one of the most potent factors in producing and continuing industrial depressions. If apprehension leads people to believe that there is to be stagnation, they immediately begin to practice a severer economy and almost to adopt parsimonious habits.

The opening of the Suez Canal has led to an increased development of the agricultural interests of India, and these interests have been so fully developed that at the present time the grain acreage of India is,

^a Report of the Secretary of the Interior for the year ending June 30, 1885.

under artificial development, rapidly approaching the grain acreage of the United States, in India the wheat acreage being, in round numbers, 30,000,000, and in the United States 40,000,000.^a The direct result of this Indian development has been an increase in the imports of Indian wheat by Western Europe and a decrease in the imports of American grain. So far as the United Kingdom is concerned, this condition is shown by the following English data:

IMPORTS OF WHEAT INTO GREAT BRITAIN AND IRELAND.

Year.	Wheat imported into Great Britain and Ireland—	
	From United States. (Cwts.)	From India. (Cwts.)
1880.....	36,190,814	2,201,515
1881.....	36,083,468	7,444,875
1882.....	35,187,173	19,901,065
1883.....	36,128,761	14,193,768
1884.....	22,641,050	21,001,412

These figures are borne out by those taken from the reports of the United States Bureau of Statistics. The following table shows the values of our exports of domestic merchandise to foreign countries during the years indicated, subdivided into products of agriculture, of manufacture, of mining, etc., and of specie:

VALUE, ETC., OF ALL PRODUCTS EXPORTED FROM THE UNITED STATES.

Year ending June 30—	Agriculture.		Manufactures.		Mining, forestry, fisheries, etc.		Total value.	Gold and silver.
	Value.	Per cent.	Value.	Per cent.	Value.	Per cent.		
1860.....	\$256,590,972	81.14	\$45,658,873	14.48	\$14,022,586	4.48	\$316,242,428	\$66,946,851
1870.....	361,188,483	79.34	47,921,154	10.53	46,098,704	10.13	455,208,341	43,883,893
1875.....	430,906,570	76.95	75,755,432	13.55	58,175,696	9.50	564,837,698	68,807,129
1876.....	456,113,515	76.07	81,374,077	13.68	57,430,123	9.65	594,917,715	50,028,691
1877.....	459,734,148	72.63	88,007,773	13.91	85,238,983	13.46	632,980,854	43,134,738
1878.....	536,102,873	77.07	91,416,576	13.14	68,140,481	9.70	695,749,930	27,061,885
1879.....	546,476,703	78.12	89,117,215	12.74	63,944,894	9.14	699,538,743	17,555,695
1880.....	685,961,091	83.25	79,510,447	9.65	58,474,815	7.10	823,946,353	9,347,808
1881.....	730,394,943	82.63	89,219,380	10.10	64,211,624	7.27	883,825,947	14,226,944
1882.....	552,219,819	75.31	103,182,481	14.08	77,687,432	10.61	733,259,732	48,489,371
1883.....	619,269,449	77.09	111,890,001	18.91	73,064,182	9.09	804,223,632	21,633,181
1884.....	536,315,318	73.98	111,330,242	15.35	77,319,298	10.67	724,964,858	56,235,625
1885.....	530,172,966	72.96	117,259,810	16.14	79,250,170	10.90	726,682,946	34,376,110

^a The wheat acreage of the United States in 1883 was 34,189,000; of India, 27,620,223. The acreage of the United States in 1884 was 39,475,885. The round figures, 30,000,000 and 40,000,000, are fairly representative of the wheat acreage of the two countries named at the present time.

VALUE OF LEADING AGRICULTURAL PRODUCTS EXPORTED FROM THE UNITED STATES.

Year ending June 30—	Raw cotton.	Breadstuffs.	Leaf tobacco.	Meats and dairy products.	Cattle, sheep, and hogs.	Total.
1860.....	\$191,806,555	\$24,422,310	\$15,906,547	\$16,934,363	\$1,463,643	\$250,533,418
1861.....	34,061,488	72,152,366	13,784,710	22,443,213	254,930	142,726,702
1862.....	1,180,118	84,183,754	12,325,350	37,188,672	255,181	135,143,076
1863.....	6,652,405	89,180,382	19,752,078	58,623,579	372,414	174,580,806
1864.....	9,895,854	63,400,606	22,845,936	51,379,801	243,665	147,705,862
1865.....	6,838,400	53,941,231	41,625,226	54,016,841	244,148	156,682,846
1866.....	281,385,223	41,249,054	29,456,145	20,653,730	426,305	382,770,457
1867.....	201,470,428	41,288,804	19,620,159	27,224,060	378,170	289,981,616
1868.....	152,820,733	69,024,059	22,988,823	31,074,598	432,566	274,254,779
1869.....	162,683,052	58,724,154	20,552,943	30,326,781	(a)	267,236,990
1870.....	227,027,624	73,250,933	21,100,420	30,992,305	724,933	332,096,215
1871.....	218,327,109	79,381,187	19,908,797	39,748,796	551,769	357,917,638
1872.....	180,684,585	94,586,273	24,136,166	64,306,139	1,193,464	354,960,637
1873.....	227,243,069	98,748,151	22,689,135	82,911,660	1,591,087	433,178,672
1874.....	211,223,580	161,198,864	30,399,181	88,511,275	2,936,429	489,209,329
1875.....	190,638,625	111,459,285	25,241,549	83,100,065	2,020,198	412,464,702
1876.....	192,659,262	131,181,555	22,737,883	92,325,308	1,951,846	440,855,354
1877.....	171,118,508	117,806,476	28,825,621	118,579,676	2,520,740	438,856,921
1878.....	180,031,484	161,777,841	24,803,165	124,845,137	4,497,576	515,955,203
1879.....	162,304,250	210,355,528	25,157,364	119,857,692	10,162,400	527,837,284
1880.....	211,535,905	288,036,835	16,379,107	132,488,201	14,657,931	663,297,979
1881.....	247,095,746	270,332,519	18,737,043	156,400,840	15,639,173	709,514,321
1882.....	199,812,644	182,670,528	19,067,721	122,020,530	8,913,656	532,485,079
1883.....	247,328,721	208,400,850	19,438,066	109,217,119	9,768,803	593,763,559
1884.....	197,015,204	162,544,715	17,765,760	114,353,768	19,333,121	511,012,588
1885.....	201,992,458	160,370,821	22,025,786	107,332,456	13,998,441	505,689,062

a Live animals not separately stated.

The facts as to wheat alone, relative to decreased exportations, are shown by the following table :

Year.	Value.	Year.	Value.
1878.....	\$96,872,016	1882.....	\$112,929,718
1879.....	130,701,079	1883.....	119,879,341
1880.....	190,546,305	1884.....	75,026,678
1881.....	167,698,485	1885.....	72,933,097

The facts shown in the foregoing tables are by no means startling. The fear, however, that Indian wheat and cotton and Egyptian cotton are rapidly taking the place of American wheat and cotton has caused producers to feel that the future has no prosperity for them. The reduction in the exportation of grain and cotton has been sufficient, however, to induce those immediately engaged in their production to curtail expenditures, and to this extent practically, and to a larger extent by apprehension; thus the consuming power of one-half of our population has been crippled in a measure. Whatever can remove this apprehension will aid in restoring prosperity.

It should, therefore, be understood that several things have contributed to the decrease of exportations in food products as well as the development of the wheat crop in India, such as the increased effort to stimulate the crops of Western Europe, and especially the increase in meat products, induced partly by industrial depression and

partly through the desire of the countries of Western Europe to be more independent of America. Again, the restrictive measures of European countries as against American meats must be considered. While, therefore, the prospect from the influence of Indian development may cause serious consideration on this side the Atlantic, it is not probable that such development need to be considered as alarming. It has probably had its worst influence so far as crippling the consuming power of a large body of the population of the United States is concerned. The influence coming from cheap wheat is one of a mixed character. If it be argued that the lowering of the price of wheat and flour would be an advantage to the working classes of this country, it may be answered that this is true only in a small degree, for, as it has been seen, if the producers of food products do not get fair prices for such products their power to purchase is crippled correspondingly, and so the influence is felt in all directions. By short crops or reduced prices the agriculturist is precluded from buying the products of mechanical industries except in a limited degree. Thus the disturbing influences resulting from stimulated development of industrial interests abroad act in a contributory way to produce and continue American depression.

It not necessary in this connection to consider the differences in quality between American and Indian cotton and wheat, or the effect of short crops in America.

Tariff Inequalities.—Very many well-informed business men allege that high duties on imported goods constitute a serious disturbing influence in manufacturing, but they complain more of the inequalities in rates than of high or low rates of duty. An illustration of the existing inequalities is given in the following table relating to woollen and mixed goods manufactured at Leeds, England, or having Leeds as the point from which distribution begins. This table states the description of the goods; their width in inches, and the weight per yard of each kind; the price of the goods at the factory; the rate and the amount of duty per pound and ad valorem, and the total amount of duty levied under the compound rate; and also the per cent. which the total duty is of the price per yard at the factory in England:

PRICE PER YARD OF LEEDS (ENGLAND) WOOLLEN AND MIXED GOODS, DUTIES, ETC.

Name.	Description.		Price at factory.	Duty.					Per cent. of price at fac- tory.	Cost in New York, not includ- ing packing, carriage to port, ocean freight, and insurance.
	Width (inches).	Weight (ounces).		Rate.		Amount.				
				Per pound.	Ad valorem (per cent.).	Per pound.	Ad valorem.	Total.		
West of England broadcloth	60	17	\$3.80	\$.35	40	\$0.372	\$1.440	\$1.812	50.3	\$5.412
Fine worsted trousering	28	11	1.62	.35	40	.241	.648	.889	54.9	2.509
Imitation sealskin (mohair and cotton)	50	31	4.50	.35	40	.678	1.800	2.478	55.0	6.978
West of England beaver	58	25	2.36	.35	40	.547	1.344	1.891	56.3	5.251
West of England all-wool Moscow	58	29	3.80	.35	40	.634	1.440	2.074	57.6	5.674
Fine worsted coating	58	24	2.88	.35	40	.625	1.152	1.677	58.2	4.537
Fine worsted trousering	28	12	1.42	.35	40	.263	.568	.831	58.5	2.251
Indigo blue Cheviot coating	58	26	2.40	.35	40	.612	.980	1.572	65.5	3.972
Low worsted coating (worsted face, woolen back, cotton warp)	50	24	.82	.18	35	.270	.287	.557	68.0	1.377
Low worsted trousering (woolen back)	28	11	.48	.24	35	.165	.168	.333	69.4	.813
Ottoman (worsted face, woolen back, cotton warp)	50	27	.82	.18	35	.304	.287	.591	72.0	1.411
Matelassé (worsted face, woolen back, cotton warp)	50	28	.84	.18	35	.315	.294	.609	72.5	1.449
Mantle cloth (worsted face, woolen back, cotton warp)	50	24	.68	.18	35	.270	.238	.508	74.7	1.188
Wool, fancy suiting	54	25	.94	.35	35	.547	.329	.876	93.2	1.816
Cotton-warp cloth	50	15	.54	.35	35	.328	.189	.517	95.7	1.057
Fancy coating	54	23	.78	.35	35	.503	.273	.776	96.5	1.556
Fancy Cheviot	54	25	.82	.35	35	.547	.287	.834	101.7	1.634
Wool, fancy suiting	54	22	.70	.35	35	.481	.245	.726	103.7	1.426
Diagonal Cheviot	54	25	.76	.35	35	.547	.266	.813	107.0	1.573
Common blue Cheviot coat- ing	52	25	.72	.35	35	.547	.252	.799	111.0	1.519
Cotton warp Moscow	52	35	.96	.35	35	.766	.336	1.102	114.8	2.062
Cotton-warp cloth	52	25	.64	.35	35	.547	.224	.771	120.5	1.411
Cotton-warp twilled Melton	50	164	.42	.35	35	.361	.147	.508	121.0	.928
Cotton-warp Moscow	52	30	.74	.35	35	.656	.259	.915	123.6	1.655
Cotton-warp cloth	50	13	.32	.35	35	.284	.112	.396	123.7	.716
Fancy overcoating (cotton warp)	50	34	.82	.35	35	.744	.287	1.031	125.7	1.851
Cotton-warp reversible	50	31	.74	.35	35	.678	.259	.937	126.6	1.677
Fancy overcoating (cotton warp)	50	32	.76	.35	35	.700	.266	.966	127.0	1.726
Cotton-warp coating	50	17	.40	.35	35	.372	.140	.512	128.0	.912
Imitation sealskin (calf hair mixed with wool, cotton warp)	50	28	.56	.35	35	.612	.196	.808	144.3	1.368
Cotton-warp coating	50	23	.46	.35	35	.508	.161	.664	144.3	1.124
Cotton-warp Melton	50	13	.24	.35	35	.284	.084	.368	153.3	.608
Cotton-warp serge Melton	50	154	.26	.35	35	.339	.091	.430	165.4	.690
Reversible diagonal (cotton warp)	50	29	.48	.35	35	.634	.168	.802	167.1	1.282
Reversible nap (cotton warp)	50	29	.44	.35	35	.634	.154	.788	179.1	1.228
Cotton-warp reversible	50	30	.45	.35	35	.656	.157	.813	180.7	1.263

This table is well worthy of careful study. In examining the figures given in the column headed "Price at factory," and the column headed "Per cent. of price at factory," which the total duty amounts to, the startling inequalities in the rate of duty to be paid in this country becomes apparent. The highest-priced goods named in the table is West of England broadcloth, worth \$3.60 per yard in Leeds, the specific duty being 35 cents per pound and the ad valorem duty 40 per

cent., making a total duty of 50.3 per cent. on the value at the factory. This is on a high grade of goods. In looking at the bottom of the table, the last entry is for cotton-warp reversible cloth, made in imitation of a better kind. It is worth but 45 cents per yard at the factory. The specific duty is the same as on the West of England broadcloth, 35 cents per pound; the ad valorem duty is 35 per cent. but the specific duty and the ad valorem duty together make the rate on the price at the factory 180.7 per cent. That is to say, the cheaper the goods at the factory the greater is the proportional increment of duty. The column headed "Per cent. of price at factory," which shows the percentage that the duty is of the factory price, brings this out clearly. By looking at this column it will be seen that this per cent. steadily increases from 50.3 on high-priced goods to 180.7 on low-priced goods. It is such glaring inequalities that cause apprehension in the minds of producers, and they constitute a valid cause of, or rather they are a legitimate influence in, causing a disturbance in values, and therefore corresponding depressions. The adjustment of rates of duty on manufactured goods should be in accordance with the labor cost of production, if duties are to be continued. It is fallacious to attempt to regulate rates of duty by rates of wages alone. The labor cost in production and all the other elements of production must be considered before an equitable schedule can be arranged. Until some such basis is adopted, the inequalities shown in the foregoing table will exist, although they may be shifted so far as products are concerned.

Miscellaneous.—Among the many causes named in the list as given at the beginning of this chapter and which many consider influential causes, but for which causes the agents of the Bureau found no supporting facts or illustrations, may be considered the national banking system. The banking system as it exists may have something to do with the stringency or plethora of the money market, but no facts have come to hand showing that it has in any way been instrumental in bringing about the present industrial depression. The same may be remarked relative to the silver question. What the silver question in the future may cause, whether prosperity or adversity, it cannot be alleged that in this depression it has had sufficient influence to produce the existing condition of things. It may have had some influence in the fluctuation of prices, but not as yet to a sufficient extent to cite the silver question as containing the important cause of or remedy for industrial depressions. Foreign capital may be a disturbing and contributory cause, but not a primary one. When capital in foreign countries cannot find profitable investment, and it seeks such profitable investment here at a time when manufacturing is overdone, then such capital aggravates the disease. Convict labor is a disturbing element, affecting the moral apprehension of large bodies of people, and thereby aids in irritating the public mind relative to depressions, but the labor of all the prisons in the country bears so small a proportion to the whole product of

the country's industries that such labor cannot be considered as a prime or influential cause of depressions. The inadequate means of distributing the proceeds of labor has far more influence in producing depressions. Extravagant living and excessive parsimony have their contributory influence in producing and continuing periods of industrial depression. Occasionally men are found who consider the enactment or the existence of labor laws as a moving influence in creating and sustaining depressions, but it is difficult to see how such can be the case. A careful examination of all such laws enacted in the different States of the Union destroys the force of such a statement.^a In the minds of consumers, trading in futures, corners, etc., is an influence productive of depressions; but while these things aggravate they cannot be said to cause such depressions. The same is true of strikes. Strikes usually come after a depression begins and just before the dawn of prosperity. They are accompaniments and not causes of depressions. The liquor traffic, as one of those causes which might be classed in the moral list and also among economic causes, is a thoroughly aggravating feature of all industrial conditions other than of prosperity, but intemperance cannot be said to cause industrial depressions. The reduction of wages follow so closely upon the opening of a depressed period that it is often considered a cause instead of an effect. Many workmen consider the wage system as an obstacle to permanent prosperity, and that it is now, whatever it has been in the past, a failure. In so far as the wage system does not allow earnings to keep pace with the wants of the people, it is a contributing influence in the induction of depressions. As a system it will be treated more fully under remedies. The other causes alleged in the long list are those springing almost entirely from apprehension, and they have such slight effect, if any, that it would be impossible to illustrate their influence by any collection of data.

^a See Appendix C for a digest of such laws.

CHAPTER III.

THE MANUFACTURING NATIONS CONSIDERED AS A GROUP IN RELATION TO THE PRESENT DEPRESSION.

It is apparent from the statistical illustrations given in the preceding chapters that the family of manufacturing states, Great Britain, France, Belgium, Germany, and the United States, if not also Austria, Russia, and Italy, are suffering from an industrial depression novel in its kind, and yet having characteristic features of similarity throughout the whole range of states. It seems to be quite true that in those states considered the volume of business and of production has not been affected disastrously by the depression, but that prices have been greatly reduced, wages frequently reduced, and margins of profits carried to the minimum range. Over-production seems to prevail in all alike without regard to the system of commerce which exists in either. What has brought all these states to the position in which they are found at the present time constitutes a most interesting and important question in economics, and one vitally affecting the wage-workers of the world. The wide study given to this matter has resulted in some conclusions entirely warranted by the facts, which may not be lacking in value, and not only the facts, but the results of the facts, are properly stated at this point.

If each of these great communities has reached an industrial condition involving phases common to all, there must be somewhere a line of reasons for such universal condition, and one should be able to develop the logical course of events which has brought such a wide range of states to an industrial epoch.

England, with generations of skill in mechanical employment, was the first to establish the factory system and institute a new industrial order of things, in which the division of labor became more and more an important factor.^a She controlled also the exchange of the world. In her insular position she was able to make the world pay tribute to her by compelling the produce of the world to pass through her hands, either in kind or in settlement of balances. With these immense advantages, and having the control, too, of raw materials in abundance, it was natural that England should seek to supply the world with manufactured products. This she was able to do with the aid of her skill,

^a The moral and industrial causes which led to the establishment of the factory system are fully outlined in a report on the "Factory System," by the writer, for the Tenth Census.

of her science, of rapid transportation, which she did much to develop, and of the vast capital which she possessed, enabling her to carry on great enterprises. So her ambition was natural and legitimate, and her great prosperity came to her without regard to any commercial system which she might have established, and in spite of commercial systems. Free trade became to her a necessity, because she sold to the world her manufactured products, and the world had few manufactured products to sell to her. With the constant increase of equipment to carry out her industrial policy, England at last found herself, on account of the course of other nations, with a plant altogether too large for the demands made upon her, and with a capacity sufficient to supply not only all her own home and colonial markets but a great share of the other markets of the world.

The United States, after the war of the Revolution, found that political freedom only had been secured as the result of the war. Industrially this country was under the control of Great Britain. It became essential to establish a commercial system, which it was thought would enable our industries to become gradually free from the industrial control of England. This policy has, with few interruptions, been pursued to the present time. Foreign producers of manufactured goods have gradually lost the American market, and the American producers have gradually found themselves in position to supply the home demand. Stimulated in this direction, the United States has gone on perfecting machinery, duplicating plant, crowding the market with products, until to-day this country is in the exact position of England, with productive capacity far in excess of the demand upon it, and her industries, as those of Great Britain, stagnated, the wages of labor reduced, prices lowered, and the manufacturers and merchants trying to secure an outlet for surplus goods. This condition has been reached under a system the reverse of that which has prevailed in England, and while stimulation has been enhanced by the system prevailing here, the condition has been reached in spite of it.

France, at first drawing her skilled workmen from England and tardy in the establishment of the factory system, at last concluded she ought to supply her own markets at least, and so began war on British industry. With a natural ambition to supply her own markets, she has carried the stimulation so far that she has not only secured the capacity to supply herself but has a vastly enhanced capacity, and is seeking to supply others. To-day France finds herself, through her policy, in precisely the same industrial situation that attends Great Britain and America.

Germany has followed the example of France and the United States, and with precisely the same results. Her commercial policy or system has been, of late years, the same as that of the United States, while Belgium has followed that of Great Britain, and yet all these nations now find themselves in sympathy in their distress, all seeking outlets for their sur-

plus production. The scale of wages in the countries named is according to the following order, the highest first: The United States, Great Britain, France, Belgium, Germany. It is difficult to connect commercial systems with this scale of wages, and when the broad view is taken that each of these countries has overstocked itself with machinery and manufacturing plant far in excess of the wants of production, and when it is considered also that the present period of industrial depression is unique in its character, as not having been attended with financial and commercial crises and panics, financial matters having been only incidentally involved, and when it is considered further that the condition of these nations has been reached under both free trade and protective policies, and under a wide range of tariff restrictions, it is readily seen that the family of nations given to mechanical production have reached an epoch in their existence, and that commercial systems which might have been at one time, or under some circumstances, necessities, are now apparently only expediencies, to be used temporarily and not as permanent features of national progress. Historically, it must be admitted that the two great opposing systems of free trade and protection have played well their parts in the industrial development of nations; but the wisdom derived from the experience of all the nations in the race for industrial success should teach each that ultimately that system freest from restrictions will beget generally the best conditions. Meantime, expediency has its power, and must continue to exercise it until the evil resulting from changes can be met through the softening influences which come from contest and hardship. The struggle so far has had a strong influence in producing ever-recurring periods of depression. These considerations are shown to be valid through the information collected by the Bureau in all the countries involved. The opinions of some of the ablest men, of wide experience and of great opportunity, substantiate the grounds taken, among others, M. de Laveleye, already referred to; Dr. Arthur von Studnitz, of Dresden; M. Piermez, of Brussels; M. Jules Duckerts, of Verviers; Professors Emil de Laveleye and Trasenster of Liège; Herr Annecke, of Berlin; and Dr. Engel, of Berlin.

In England, Belgium, and France the railroads and canals that are really needed have been built. There remain only to be constructed feeding and competing lines, and experience shows that for such lines the revenue for the capital invested is not equal to nominal remuneration. In Holland the great works are completed; Amsterdam is united to the sea, international communications have been well established, and there are no longer urgent works to be undertaken, and the reward of capital to be invested now is not sufficient to tempt lenders. In Italy and Spain the great arteries are provided with railroads, while the products moved and the revenues derived from capital invested are notoriously inferior to what was expected. When this is the case there is no prospect of rival or subsidiary lines being constructed. Harbors

and rivers are sufficiently developed, and warehouses, water and gas works, tramways, etc., are largely provided for. The Pyrenees and the Alps are tunnelled, and a sufficient network of international communication established. In England railroad building cannot be extended to a sufficient degree to absorb much capital or much labor. In Russia the principal lines of railroad have been built with the aid of the Government, and it is not likely that further construction will take place except for strategical purposes. Germany is provided with a full network of railroads, and the facilities for transportation are in excess of actual needs. Austria is in much the same condition as Germany, and Turkey also has as many railroads as can be used. In the United States the mileage of new railroads constructed has been out of all proportion to the increase of products to be carried.

The Suez Canal has been built, terrestrial and transoceanic lines of telegraph have been laid, and the merchant marine has been transformed from wood to iron. To-day the carrying service of nations, and especially of the great marine nation, England, is overstocked to a far greater extent than the industries. On all sides one sees the accomplished results of the labor of half a century. From a financial point of view, these accomplished results should always be good, but in many cases it is apparent that undertakings have proved deceptive and Governments become needy and some, as Egypt, insolvent. Whatever may have been the financial results, industry has been enormously developed, cities have been transformed, distances covered, and a new set of economic tools has been given in profusion to rich countries, and in a more reasonable amount to poorer ones. What is strictly necessary has been done oftentimes to superfluity. This full supply of economic tools to meet the wants of nearly all branches of commerce and industry is the most important factor in the present industrial depression. It is true that the discovery of new processes of manufacture will undoubtedly continue, and this will act as an ameliorating influence, but it will not leave room for a marked extension, such as has been witnessed during the last fifty years, or afford a remunerative employment of the vast amount of capital which has been created during that period. The market price of products will continue low, no matter what the cost of production may be. The day of large profits is probably past. There may be room for further intensive, but not extensive, development of industry in the present area of civilization. Outside of the area of a high state of industrial civilization, in China, Japan, India, Australia, Persia, and South Africa, there is a vast deal to be done, but this of necessity will be accomplished slowly, as these countries, not having the capital to make speculative movements, must depend upon the money-lending countries. Supplying themselves with full facilities for industries and commerce will give to each of the great nations of Europe and of America something to do, but the part of each in this work will be small and far from enough to insure more than temporary activity.

It may help to keep away stagnation and modify the severity and the duration of industrial depressions. There are very many influences, like the great expense of standing armies, of war and revolutions, and local features, so far as causes are concerned, which enter into the consideration of the industrial situation of the world so far as localities are specifically concerned. The present treatment only has to do with those things which seem to be common. The building of railroads and of ships, even in countries where the land is interlaced with roads and supplied with wharfs lined with shipping, must go on, because the waste needs repairing, and the great industrial work of supplying the world will furnish enough for all to do; but the brief review of the present industrial situation of the great communities involved indicates that statesmanship is required to establish such guards and checks in human affairs as shall lead to a safer and surer progress than that which has attended the past decade. In the consideration of suggested remedies and in the summary of this report facts will be brought out which will at least be suggestive of channels into which legislation, but more effectually public sentiment, may be directed. Certainly, with the aid of the wisdom of some of the best minds in Europe and America, and of men having the largest experience, these directions should have their influence.

One of the agents of the Bureau reports as the result of interviews had with leading economists in Europe the following as the predominant features of modern industrial development among the producing nations: (1) The influence of the increased facilities for transportation and international communication. (2) The steady progress of rising wages, contemporaneous with declining profits. (3) The enlargement of the circle of producing nations to such extent as to make the means of production far in excess of the needs of consumption. The factors responsible for this state of affairs are—

(a) The desire to participate in the large profits made by those first in the field.

(b) The continuous flow of precious metals after the discovery of the gold mines of California and Australia.

(c) The extension of the credit system, facilitating the advance of capital to those who knew the processes and secrets of manufacture, but who had not the ready money to commence business on their own account.

(d) The establishment of protective tariffs in most of the western European countries and the United States inducing sharp domestic competition and over-production.

(e) The abnormal stimulus given to industry in Germany by the accomplishment of German unity and by the payment by the Government of its domestic obligations from the war indemnity received from France.

The saving made in the cost of production by modern highly-developed systems of transportation has been very great. During the first half century railroads were built gradually, and their effect on the cost of transportation and production was gradual also; but beginning with 1869, the simplification of methods of communication between man and man, between town and town, between nation and nation, and between continent and continent, has progressed by leaps and bounds. Between 1869 and 1875 especially railroad building assumed enormous proportions, the total mileage of roads in Germany, for example, being more than doubled between 1869 and 1880. Side by side with extensive railroad building came great improvements in ocean transit and the construction of oceanic cables. The effect of these things has been felt more particularly in recent years, because of late they have come with phenomenal rapidity. The state control of railroads in Belgium and Germany, it is considered, has done much to prevent the waste of capital upon the construction of useless parallel lines merely for speculative purposes, from which the United States has suffered. State control has also had another important influence, namely, in making the unit assigned to transportation in the cost of production a fixed and unvarying quantity. In Germany the railroads yield a handsome revenue to the state, and while the rates charged for transportation are not excessive, they are not fixed at the lowest paying level. Accordingly much attention has been paid of late years to the development of internal water-ways, and generous appropriations have been made by some of the state governments, particularly of Saxony, Prussia, Bavaria, and Baden, for such purposes. The development of traffic on the rivers of Germany, particularly on the Elbe and the Rhine, has been very extensive during the past few years. The tonnage and loading capacity of interior shipping in Germany are much greater than those of sea shipping. Large companies have been formed, regular and prompt service has been instituted, and a great carrying trade developed. Much interest is manifested in the question of facilitating internal water transportation. An influential journal, *Das Schiff*, ably edited by Baron von Studnitz, is published at Dresden to further this object, and the project of uniting the Lower Elbe with the Rhine is seriously considered. The difference in rates between rail and water transportation is considerable. In Upper Germany alone it has made a difference of nearly 20 per cent. in the price of coal, and, of course, a corresponding reduction in the cost of production. This development of water transportation is due to two causes, an effort to offset the disappearance of railroad competition when the state assumed the management of railroads, and the necessity, after the imposition of the German tariff of 1879, of the importers using the cheapest possible means of transportation, that the price of their wares might be affected but little. In Germany, as in other countries, the great practical bearing which the wonderful extension of the means of transportation and communication has had upon industry is that it

has infinitely enlarged the field of competition, which enlarged competition has reacted upon prices by depressing them, and upon itself in turn by creating a demand for further and more efficient means to lower again the cost of production. Of course the consumer has been able to possess himself more easily and at less cost of the articles of use or luxury than in former times.

Upon the phenomenon of the rise of wages side by side with the general decline of prices and profits in Germany, Dr. Barth, one of the highest economic authorities of that country, observes that "human labor has become more productive; by the same quantity of labor vastly more useful products are produced and exchanged to-day than even twenty years ago. The sum of all products of labor in which the world has to share or which the world is free to enjoy has not only absolutely but also relatively been largely increased, and the economical condition of mankind has been improved. This, of course, does not mean that all classes of mankind have profited equally by the change. Certainly, however, the wage-laborers are not the losers but the gainers by this change. Take a list of wages wherever you please, and you will always find wages to have advanced with rare interruptions during the last half century. Even where such an advance of wages is not found, the contemporaneous decline in the prices of commodities nevertheless amounts to an advance of wages. This constant increase in the value of labor constitutes an immense progress of civilization."

M. Piermez, a thoughtful Belgian banker and public man, in an examination of the present economic situation, asks the questions: "(1) Are we in the face of a general diminution of wealth? (2) Or is there only a change in its distribution?" Answering the first in the negative, he proceeds to show how the distribution has been modified so as to give a proportion of revenue relatively less to land and capital and greater to labor. Capital has greatly increased and will continue to increase, but probably not in such a rapid progress as heretofore and chiefly for these reasons: "(1) It is not likely that there will be again an economic progress comparable to that by which this century has changed the face of the whole world. (2) The accumulation of savings will tend to diminish in proportion as they are rendered less and less productive. (3) The lower classes, whose share in the world's distribution of wealth will continue to increase, save less than the upper classes. The average well-being of society increases with increase of wealth, and in the partition of this well-being a continually smaller share will go to those who live by wealth already acquired and a greater share to those who work. It will be still more difficult than it is to-day to live without working. Side by side with the fact of the increased reward of the wage-earner must be placed the great advance in the purchasing power of his wages. All the necessities of life, food, clothing, heating, and lighting have been cheapened, and the tendency is for them to become cheaper still, that is, unless, in the case of the first-named article, the tar-

iffs recently imposed in some European countries, Germany and France especially, the cost of food should remain normal or ascend. Laborers are feeling the effects of higher wages by eating more, clothing themselves better, and lodging in more wholesome houses. This, in return, reacts in making their labor more efficient and enables them to gain still more."

A prominent manufacturer of Mülhausen remarked that he would be glad to have his laborers earn twice as much as they did and consume more, as he would certainly be the gainer thereby and be placed in a better position to compete with English labor. This higher standard of living, he thought, makes it next to impossible to reduce the wages of labor to any great extent in periods of depression.

The theory of European manufacturers is that piece wages have contributed much to the efficiency of labor. In times of depression, when it has been necessary to lower the tariff of wages, it is a well-known fact that the aggregate earnings of laborers have been as great and sometimes even greater under this system than before the depression.

The best European authorities agree that the circle of producing nations has been so enlarged as to make the means of production far in excess of the needs of consumption. The influence of this condition was perhaps first felt in the progress of the crisis of 1873-78. No leading industry has experienced a prominent stimulation since that time except the iron industry, which was due almost entirely to the demand for railroad iron in the United States during the years 1879-82. Twelve years ago a blast furnace producing 50 tons of pig-iron in twenty-four hours was regarded as a good furnace. Now a blast furnace produces as much as 200 tons in the same time. This exemplifies the tendency to increase the means of production far beyond the needs of consumption, and this increase in the great family of producing nations has been far in excess of the increase of population. Excessive production, in the opinion of M. Jules Duckerts, of Belgium, is the reason which every European manufacturer will give first of all as the cause of the prevailing low prices, and he will add that this over-production has been a growth nourished by permanent and not transitory phases of the industrial development of the last half century.

Very many economists and manufacturers consider that the influence of the imposition of protective and prohibitory tariffs in Europe during the last few years cannot be overlooked in a view of the present industrial situation, for formerly England, Belgium, and France were the great producing nations for the rest of Europe, and then the United States commenced to manufacture for herself, and finally to a large extent shut out European products by the imposition of the war tariff. Next Germany entered the list as an industrial competitor on foreign ground, and since 1870 especially has sought a wider market than her own territory. She did not, however, sufficiently control the home market to suit herself, and so the German Government

enacted a stringent tariff law in 1879. Either in retaliation for this measure, or to share in the world's ambition to become industrially great, probably from both influences, Russia, Italy, Austria, Turkey, and even Switzerland have since hedged themselves in behind strong customs barriers. Among nations so intimately related geographically and commercially, these measures, in the opinion of very many men able to judge, have had a double effect: First, they have injured the export trade of the great producing nations, and, second, they have induced excessive domestic competition within each nation's boundaries. Both these influences have contributed to further augment the means of production, inducing over-production, or, as it is often called in Europe, faulty production, and lower prices. The manufacturers of Germany in 1878 demanded the tariff as a panacea for the then existing depression. It was given them, but prices were not raised, except the price of iron temporarily, due to the great demand in the United States for railroad iron from 1879 to 1882, in which latter year prices returned to the level of 1878, and they are now at the bottom. All over Germany one hears the complaint that although there is a fair amount to be done in industrial enterprise, it is not worth while to do it. The retaliatory measures of Russia, Austria, and Italy have hurt German export trade exceedingly, but their full effects have not yet been felt. The Russian and Prussian Governments are now engaged in the conciliatory work of expelling one another's subjects from their respective territories, the one mainly because the Russian Pole outbids his German competitor in the demand for labor, and the other because when the tariff went into operation many Prussians invested capital in mines and iron works just across the Prussian border from Upper Silesia. The South German states are also proposing to pour oil on the troubled waters by raising an agitation for the expulsion of Italian cheap labor from their territory.

The German Government considers that by the tariff of 1879 she gained a home market, with the chief exceptions of the lower grades of iron, machinery, and the finer qualities of cotton yarn and woollen cloth. She has also gained over \$33,000,000 as annual customs dues, and the use of a great deal of English capital invested in some of the best-paying branches of manufacture from which England is excluded by the tariff. The prices of commodities, from having been permanently raised, are as low as they can be, and the wages of labor have been in no general respect increased. Domestic competition more than supplies the demand of the home market, and Germany, instead of competing with England and Belgium on her own soil, must try strength with them in colonial fields, and she is now trying in several ways to find outlets for her surplus goods, to take the place of the neighboring markets from which she has been largely excluded. Her colonial policy has for its object the establishment of German colonies in Africa and in the Pacific islands which shall be politically and industrially dependent upon the

Fatherland, and also the establishment by subsidy of regular steamship lines to China, Australia, and the East. A beginning in this direction was made in October last by the endowment of 4,500,000 marks (nearly \$1,080,000) annually upon the North German Lloyd Steamship Company for a regular bi-monthly service to Australia and China. Germany has been slow to see the advantage of England's splendid equipment for oceanic transportation, but necessity has at last given her instruction. Her policy also includes the improvement of the character of the articles offered by her for export, and the establishment of a huge commercial agency—the Export Bank—with branches throughout the world, the object of which is to furnish trustworthy information to merchants on the state of foreign markets, the solvency of consignees, etc. She also contemplates changes in the laws governing joint-stock companies, with the view of making them more substantial and with greater responsibility toward debtors.

Belgium, whose prosperity in linen, coal, iron, and glass depends so largely upon the export trade, is very injuriously affected by these changes of economic policy by her neighbors.

The conditions relating to Germany have been thus dwelt upon at considerable length in this chapter for the lessons they teach, and because many of the features attending German industrial development are common to so many other nations, and because they illustrate the endeavors of other nations to not only supply their own market with manufactured goods as against the world through various policies, but in addition to gain a profitable export trade. If all the producing nations of the world succeed in supplying themselves with manufactured products, as they are so largely doing and in so many cases have succeeded in doing, and then all seek the relief which comes from selling their surplus products at low rates to their neighbors, the world has indeed reached an industrial epoch, and governmental policies and the rules of political economy must be changed to meet the new conditions resulting from the arrival at a novel industrial period.

CHAPTER IV.

SUGGESTED REMEDIES FOR DEPRESSIONS.

Very many remedies have been suggested for depressions in the past. In a general way, the remedies are very largely theoretical and not capable of statistical illustration as to their value. The testimony given before the three Congressional committees which have investigated industrial depressions, their causes and remedies, developed a very large number of suggested remedies, of course relating to depressions back of the present one. These remedies are stated, alphabetically, as follows:

REMEDIES FOR DEPRESSIONS AS ELICITED BY COMMITTEES OF CONGRESS.

- | | |
|--|---|
| Abrogation of all treaties that interfere with the practical enforcement of the Monroe doctrine, so as to secure the removal of obstacles that prevent our control of the trade of the South and Central American countries. | Civil service—
revision of the. |
| Apprentices—
limit the number of. | Coal—
public ownership of |
| Arbitration and conciliation—
establish boards of. | Colonization. |
| Armies—
“industrialization” of. | Competition—
necessary to prevent excessive charges in business enterprises. |
| Banks—
abolish national.
abolish savings.
establish postal savings.
establish a system of uniform protection to investors in savings. | Contract system—
abolish the. |
| Bonds, national—
immediate payment of, with paper, to be a legal tender. | Corners—
prohibition of. |
| Capital—
proper distribution of.
equal distribution of profits between, and labor.
remuneration of labor before.
let Government fill for the people the position now filled by capitalists. | Corporations—
revoke the corporate charters of, where the functions conferred can be performed by states or the Federal Government.
limit the profits of.
no more grants to.
give labor the means of acquiring ownership in. |
| Children—
protection of, against the avarice of parents.
not to be employed under fourteen years of age. | Currency—
sound.
reform of.
reduce the fictitious value of the.
uniform value of the.
steady value of the.
confidence in the.
establish public depositories of.
no inflation or contraction of the.
issue, until the purchasing power of a dollar in the United States is placed at the same figure it had when the debt was contracted. |

Currency—Concluded.

no further legislation relative to the.
no further legislation relative to the,
for five years.

return to a specie basis.

reconstruct the circulating system.

improve the national banking system.

legalize free banking.

legalize free coinage.

issue silver certificates.

issue paper money on the faith of the
entire wealth of the United
States.

issue twenty millions in greenbacks,
of equal value of gold.

issue \$58 per capita, and continue to
do so as population increases.

substitute greenbacks for national-
bank notes.

call in bonds, and issue greenbacks in
their stead.

take the management of the national
finances out of the hands of the
money ring.

establish a single unit of value which
shall be legal tender.

make all coin legal tender for all
debts, public and private.

make paper money full legal tender.

make the gold and silver dollar ex-
changeable at sub-treasuries.

make bank notes payable in gold.

make silver coin redeemable in gold.

restore silver to its place as a money
material.

substitute national security for pri-
vate credit.

bring the money we have into its
natural use, instead of having it
capitalized.

let business furnish its own circula-
ting medium.

create a paper for legal tender, and in
the settlement of debts.

unlimited coinage of silver.

retire all promissory notes.

District of Columbia—

establish a municipal government for
the.

Education—

industrial, Government to have su-
pervision over.

compulsory.

mechanical.

technical.

Education—Concluded.

national.

general, with national aid.

legalize a system of, for the lower
classes.

give all healthy children the benefits
of, from the age of six to sixteen
years.

Government to have supervision over.
establish boards of.

establish industrial schools and col-
leges.

establish normal institutes.

establish art schools.

establish trade schools.

educate the masses.

create a greater interest in the com-
mon schools.

liberal system of, for the lower classes.

make the educational system more
attractive.

Elective franchise—

give the, to every male.

give the, to females.

Good judgment, and hard work.**Government—**

reduce salaries of officers of the.

abolish all unnecessary offices of the.
make it do its own work.

change the, from a political to an in-
dustrial.

never to borrow money, nor pay in-
terest.

more stable.

rigid economy of the.

local self, with no Federal interfer-
ence, by laws of a purely moral
or religious nature.

Growth and progress of the nation no
longer measured and held in
check by the amount of gold
taken out of the earth.

Health—

establish boards of.

Hygiene—

establish a department of.

House of Representatives—

restrict the powers of the.

Immigration—

prohibit.

prohibit Chinese.

prohibit foreign contract.

withdraw all inducements held out
to immigrants.

Importation—

make what we need, and stop importing.

Interest—

reduce the rates of.
abolish the system of.

Internal improvements—

increase.
make liberal appropriations for.
undertaken by state and Federal authority, at a hundred points within our jurisdiction.

Iron—

public ownership of.

Justice to the great labor interests of the country.

Kindergartens—

establish public.

Labor—

equal distribution of profits between, and capital.
more equal distribution of, among the people.
to receive the benefits of labor-saving machinery.
redistribution of.
less machinery to be used in.
equal wages to male and female laborers doing the same or equal work.
state action relative to.
home market for productions of.
remuneration of, before capital.
Government pay to be the standard of.
diversified.
productions of, to be divided among all.
national aid to, in developing the natural resources of the country.
earnings of, proportioned to employers' profits.
employment given to all.
loans to indigent, desiring the benefits of the homestead act.
give employment to, after education.
make six hours a legal day's work.
legalize the standard of wages.
reduce the hours of.
reduce the working time of, until all find employment.
increase the wages of.
organization of.
reduce the productive power of.
aid surplus, to settle upon and occupy the public domain.
legislation in favor of.
legal protection to.

Labor—Concluded.

establish a United States bureau of.
establish state bureaus of.
establish bureaus for the direction of surplus.
elect directors of bureaus for the employment of surplus, in every trade, profession, and occupation, paying all the same, from President down; and allowing none but such directors to employ labor.
establish a new system of industry.

Lands—

allow no person more than he can economically use.
allow settlers, quantities of only sufficient for their necessities.
adjust transportation laws so people can settle on the public.
aid the surplus of labor to settle upon the.
break up bonanza farms.
ground rents to be for public use.
Government aid in securing.
scientific instruction in the cultivation of.
give to actual settlers only.
rent school.
rent, instead of selling.
reclaim, fraudulently obtained.
reclaim, from corporations that have not earned them.
reclaim forfeited.
restore forfeited, to the people.
abolish private property in.

Laws—

abolish bankrupt.
abolish conspiracy.
abolish discriminating.
abolish homestead.
abolish navigation.
abolish tramp.
abolish usury.
abolish land, which give protection to titles not based on personal occupancy.
abolish, for the collection of debt.
enforce the eight hour.
enact land, preventing the holding of great tracts by corporations and individuals, including foreign landlords.
enact stringent, against fictitious values.

Laws—Concluded.

enact, punishing bribery with disfranchisement.

enact, prohibiting lawyers who are legislators from accepting retainers to influence legislation.

enact, prohibiting officers of public companies from speculating in their own securities.

enact, making gambling in the necessities of life a conspiracy.

enact, limiting the life of corporate charters in future to thirty years, and so far as can be done re-enact existing ones.

enact, making employers liable for injuries to employes.

enact, prohibiting the granting of licenses to prisons for the manufacture of cigars.

enact, prohibiting unjust discrimination.

enact, prohibiting free passes.

enact equal, for all classes.

enact, for the suppression of vice.

enact, simplifying remedial justice in courts, and reducing expenses.

enact, against communistic schemes.

enact, against watering corporate stocks.

enact, compelling the observance of contracts.

enact, simplifying the whole legal system.

enact, changing the tenure of land.

enact apprentices.

enact homestead.

enact prohibition.

revise the revenue, in the interests of American commerce, agriculture, and manufactures.

revise the patent.

repeal of all, that are a burden upon American shipping, and award ocean mail contracts to the lowest bidders among the owners of American vessels, after open competition.

revoke corporate charters which confer functions like those of transportation, telegraphing, etc., which could be more efficiently and equitably performed by states and the Federal Government.

Legislation—

wise.

Manufactures—
establish a department of.

Markets—
open foreign.

Military Academy—
abolish the.

Mines—
public ownership of.

Mississippi River—
improvement of the.

Monopolies—
check.
destroy.

Moral suasion.

Naval School—
abolish the.

Navigation—
improve internal.

Navy—
abolish the.

"Parcel post"—
establishment of a.

Patents—
freedom of, with a royalty system.

Petroleum wells—
public ownership of.

Piecework—
abolishment of.

Political contributions and expenditures—
to be made public.

Prejudices—
extermination of sectional and geographical.

President—
restrict the powers of the.

Press—
free.

Prison system—
abolishment of the.

Private fortunes—
limitation of.

Producing interests—
regulate the.

Property—
secure a fair and just distribution of.
common ownership of.

Protection—
protect the manufacturer in his production and the laborer in his labor.

Public debt—
stop the sinking fund to pay the.

Public works—

establish efficient boards of, under a comprehensive system and policy.

Public service—

develop it upon the basis of capable and honest services, and not upon partisan favor.

Railroads—

Government to have direction and supervision of, and of other corporations.

not allowed to change transportation rates.

add building of, telegraphing, and interstate commerce to the functions of the Government.

regulate freight charges.

stop jobs of.

let all, be owned by Government.

public ownership of.

provide commissions (state and national) to see that railroad laws are enforced.

let charges of, be regulated by competition.

Sanitary inspectors—

increase the number of.

Sanitary reform—

compelling.

Senate, United States—

abolish the.

Ships and shipping—

encourage ship-building.

own our own ships and do our own shipping.

foster shipping interests.

subsidize steamboat lines.

Societies—

organize benefit.

State—

entire and absolute secularization of the, and of all laws, in order that the spiritual power may be free, and that bigotry and superstition shall not hinder the state in its normal duties.

Stockholders—

give the minority some representation.

Tariff—

abolish the.

abolish the, on all things which are necessities of life to the poor, either for consumption or as raw material for their labor.

Tariff—Concluded.

reduction of the.

gradual reduction of the.

revision of the.

protect by, all articles of the kind we can produce, equal to the difference between the cost of the foreign and domestic labor and capital necessary for their production.

remit duty on imports entering into goods for export.

establish a protective.

establish a reasonable protective.

establish an ad valorem.

increase the, on works of art.

increase the, on articles that have been discriminated against in the late revision of the.

revenue to be sufficient to carry on the business of the Government, and to be so adjusted as to be the largest on goods in which labor was the largest share.

Taxation—

abolish.

abolish all internal, of the United States.

abolish all, except of land.

abolish all, except such as is necessary to carry on the Government.

abolish indirect.

abolish all, upon things that are necessities of life to the poor, either for consumption or as raw material for their labor.

substitute income, for all other.

establish income.

establish a progressive income.

establish a graded income.

make income the basis of.

increase of, on capital.

increase of, on rum and tobacco.

decrease of, on labor.

of foreign steamers.

of all property equally.

of Government bonds.

of railroads.

direct.

less.

raise the load of.

double, on unimproved lands of private owners.

exempt from, homestead to the amount of \$2,000 and household property.

Taxation—Concluded.

adjust, so the tendency will be to make capital, rather than labor, bear the burden.

Telegraphs—

to be owned by Government.
establish a system of.

Telephones—

to be owned by Government.

Trades unions—

organization of.

Trades union—Concluded.

given the right to charter.

Truck system—

abolish the.

Vice-President—

restrict the powers of the.

Wages—

let labor have a voice in fixing.

Wealth—

"moralization" of, both capital as accumulated labor and labor as the potentiality of wealth.

The agents of this Bureau, in carrying out their instructions, sought for remedies for the present depression. They met with representative men in all walks of life, who freely gave the results of their observations and business experience in their suggestions of measures, which, in their minds, would remedy depressions, or modify their severity or shorten their duration. Of course, among such suggested remedies, as among the causes which have been given in the proper chapter, are to be found many trivial suggestions, remote and theoretical, and whose bearing cannot be traced as having any influence in the premises. Many suggestions will also occur to those who read this report, outside of those recorded; but, as a rule, it will be found that the most of those which will occur to men's minds are, to a greater or less extent, involved in the remedies suggested herein. These remedies as stated to the Bureau are classified as follows:

REMEDIES FOR DEPRESSIONS AS GATHERED BY THE AGENTS OF THE BUREAU.**Commercial and mercantile—**

Open foreign markets.
Open up foreign trade.
Build ocean steamers for foreign trade.
Encourage ship-building.
Subsidize steamboat lines for foreign trade by Government.
Foster and encourage trade with Mexico and South America.
Abolish a protective tariff.
Conservative action relative to the tariff.
Judicious revision of the tariff.
Less tariff legislation.
Removal of tariff on raw material.
Protection.
An established tariff.
Abolish the tariff.
Abolish the tariff except in a very few cases.
Free trade.

Commercial and mercantile—Concluded.

Placing duties on articles demanding protection for the interest of the laboring classes.
Invest the treasury surplus in internal improvements.
Forbid the further building of railroads and telegraph lines except by consent of a railroad commission.
Check the tendencies to overtrading.
Increase public works.
Change the navigation laws so as to allow Americans to own foreign-built ships.
Reclaim public lands forfeited by railroads.
Reclaim the cattle lands of Colorado, New Mexico, and Wyoming.
Increase ocean transportation.
Definite settlement of the tariff for a series of years.
Reform in distribution.

Financial—

- Reduce taxation.
- Check the expansion of credit.
- Settlement of a world-standard of values, with fixed equivalents in gold and silver.
- Check legislative derangement of the currency.
- Return to greenback currency.
- Tax no man owning less than \$5,000 and all owning more than that.
- Legislation that will prevent the consolidation of large bodies of capital.
- A sound currency.
- Equalize taxation by a system of nationalization of land.
- Abolish taxation on all articles except distilled, vinous, and fermented liquors, and tobacco.

Industrial—

- Coöperation.
- Erect central factories to compete with the sugar factories of Germany and France.
- Check tendencies to over-production.
- Manufacture goods on demand.
- Extend the system of profit-sharing.
- Reduce the hours of labor.
- Less production.
- More even production.
- Equalize supply and demand.
- Manufacturers to be content with less than 10 per cent.
- Organization of laborers.
- Organization of employers.
- Sliding scale.

Political—

- Let Government give attention to the individual needs of its citizens.
- Let Congress cease framing laws for the industrial interests of the country.
- Encouragement of the mail service by Congress.

Political—Concluded.

- Adoption of measures to aid and encourage agricultural interests.
- More frequent changes in party administrations.
- Electing men of better judgment to Congress.
- Less frequent meeting of Congress.
- Cease granting lands to corporations.
- Extension of the Presidential term.
- Abolishment of the "spoils system."
- Restrict immigration.
- Extend the system on which the Postal Department is managed to the more important industries.
- Fewer state and national elections.
- Social and moral—**
- Economy in all directions.
- Better education of the people.
- Enactment of laws to stop speculation.
- Economy and prudence.
- Put honest men in office.
- Well-defined classification of society.
- Educate men for specific duties or stations in life.
- Cessation of speculation.
- Self-improvement of the workingmen.
- Allow no man to own more land than he can use himself.
- Establish industrial schools.
- Harmonious action between labor and capital.
- Teach laborers and employers that the decrease of wages and profits means fewer luxuries.
- Honesty in all business transactions.
- Suppress gambling that is carried on in the necessities of life.
- Time.
- Boards of arbitration to be created by legislation to settle differences between capital and labor by dividing the profits of the business, above interest, equally between them.

It is neither advisable nor possible to treat all the foregoing remedies extensively or to attempt to illustrate their value. A few, however, stand out prominently, and it may be profitable to consider such at some length, and in such treatment, as in the treatment of causes, purely theoretical and metaphysical suggestions are allowed to stand as such. The first suggested remedy in the foregoing list which attracts attention is that relating to—

The Restriction of Land Grants to Corporations.—

It has been shown under causes that three-fifths of the public domain has been exhausted or taken up, either by settlers or by grants to corporations, but to a very large extent by the latter, and that the remaining two-fifths is made up largely of undesirable lands. These being the facts, a halt should be made in freely granting lands to corporations, for however valuable such grants may be to the public interest in developing great lines of railroads, the result is that the lands constitute a basis to a greater or less extent for speculative purposes. Had a halt been made at an earlier period in our history it would have been well for the country. If there are to be no restrictions upon immigration, the Government should keep control of as large an amount of lands suitable for actual settlement as possible consistent with a progressive policy. So the remedy suggested, to "cease granting lands to corporations," has a practical bearing, and casual consideration takes such suggested remedy out of the realms of theory. Closely connected with this suggested remedy is the following:

The Restriction of Immigration.—Under causes the results of too free immigration have been pointed out. Legitimate voluntary immigration may be too rapid to enable a country developing its industries to assimilate labor from the outside; but when immigration becomes a subject of inducement, of contract, for the purpose of displacing a higher grade of labor, the result is indeed pernicious, and all the authority of law should be called in to prevent the continuance of the wrong. This Congress has undertaken to do, as will be seen by the following law:

AN ACT to prohibit the importation and migration of foreigners and aliens under contract or agreement to perform labor in the United States, its territories, and the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act it shall be unlawful for any person, company, partnership, or corporation, in any manner whatsoever, to prepay the transportation, or in any way assist or encourage the importation or migration of any alien or aliens, any foreigner or foreigners, into the United States, its territories, or the District of Columbia, under contract or agreement, parol or special, express or implied, made previous to the importation or migration of such alien or aliens, foreigner or foreigners, to perform labor or service of any kind in the United States, its territories, or the District of Columbia.

SEC. 2. That all contracts or agreements, express or implied, parol or special, which may hereafter be made by and between any person, company, partnership, or corporation, and any foreigner or foreigners, alien or aliens, to perform labor or service or having reference to the performance of labor or service by any person in the United States, its territories, or the District of Columbia previous to the migration or importation of the person or persons whose labor or service is contracted for into the United States, shall be utterly void and of no effect.

SEC. 3. That for every violation of any of the provisions of section one of this act the person, partnership, company, or corporation violating the same, by knowingly assisting, encouraging or soliciting the migra-

tion or importation of any alien or aliens, foreigner or foreigners, into the United States, its territories, or the District of Columbia, to perform labor or service of any kind under contract or agreement, express or implied, parol or special, with such alien or aliens, foreigner or foreigners, previous to becoming residents or citizens of the United States, shall forfeit and pay for every such offense the sum of one thousand dollars, which may be sued for and recovered by the United States or by any person who shall first bring his action therefor including any such alien or foreigner who may be a party to any such contract or agreement, as debts of like amount are now recovered in the circuit courts of the United States; the proceeds to be paid into the treasury of the United States; and separate suits may be brought for each alien or foreigner being a party to such contract or agreement aforesaid. And it shall be the duty of the district attorney of the proper district to prosecute every such suit at the expense of the United States.

SEC. 4. That the master of any vessel who shall knowingly bring within the United States on any such vessel, and land, or permit to be landed, from any foreign port or place, any alien laborer, mechanic, or artisan, who, previous to embarkation on such vessel, had entered into contract or agreement, parol or special, express or implied, to perform labor or service in the United States, shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be punished by a fine of not more than five hundred dollars for each and every such alien laborer, mechanic or artisan so brought as aforesaid, and may also be imprisoned for a term not exceeding six months.

SEC. 5. That nothing in this act shall be so construed as to prevent any citizen or subject of any foreign country temporarily residing in the United States, either in private or official capacity, from engaging, under contract or otherwise, persons not residents or citizens of the United States to act as private secretaries, servants, or domestics for such foreigner temporarily residing in the United States as aforesaid; nor shall this act be so construed as to prevent any person, or persons, partnership, or corporation from engaging, under contract or agreement, skilled workman in foreign countries to perform labor in the United States in or upon any new industry not at present established in the United States: *Provided*, That skilled labor for that purpose cannot be otherwise obtained; nor shall the provisions of this act apply to professional actors, artists, lecturers, or singers, nor to persons employed strictly as personal or domestic servants: *Provided*, That nothing in this act shall be construed as prohibiting any individual from assisting any member of his family or any relative or personal friend, to migrate from any foreign country to the United States, for the purpose of settlement here.

SEC. 6. That all laws or parts of laws conflicting herewith be, and the same are hereby, repealed.

Approved, February 26, 1885.

To undertake to regulate voluntary immigration is an exceedingly delicate matter. The policy of the Government in the past, the principles on which the United States Government is founded, and all the traditions of the country furnish arguments against any such regulation, and yet free, voluntary immigration may do the industries of the country great harm. If so, the past and its precedents should not influence the future and its good. As stated under "Causes," the industrial world having arrived at what may be called a crisis period through the

rapid extension of machinery and the consequent over development of the industries of the world, makes the doctrine that the United States offers an asylum to the world somewhat dangerous, or, at least, renders it a doctrine now largely out of place. The constitution of the forces employed in the mechanical industries offers the sharpest argument in favor of wise regulation of immigration, for it will be remembered that 31.9 per cent. of all those employed in such industries in this country are of foreign birth, and however much foreign immigration has aided the development of railroad building, public works, rivers, and other enterprises, the industries have been obliged to assimilate labor faster than the demands for products have warranted. These statements are made with a thorough understanding of the great value which foreign citizens have brought to this country—value not only in their own labor, but in the aggregate wealth which has been brought with them—and as their assimilation as citizens with those of longer residence becomes more and more felt, the value of their presence becomes more and more enhanced. Their interest, however, is involved in this question of over-immigration.

The Enactment of Laws to Stop Speculation.—

The effect that such laws would have, if they could be applied specifically, would be for the public good. The facility with which stock companies can be organized in most of the states, and the means which such companies offer for the aggregation of small sums into large capital for the purpose of developing great movements, have been referred to. Probably any laws which might prevent such employment of small sums would be pernicious in their effects, but it might be wise to consider whether existing laws have not been too loosely drawn, and whether they do not grant too great privileges in the way of watering stock and of launching enterprises upon the public that have not money or property back of them. It might be well to enact laws allowing no organization to put its stock upon the market unless the full value of its capital stock is paid in, either in the currency of the country or in absolute property. Many corporations are organized for the purpose of floating stock, and with a glowing prospectus the stock is floated. The result, under such circumstances, is disastrous to all engaged, and the morals of the community in which such transactions take place are more or less damaged. Certainly in this suggested remedy there may be found practical steps which can be taken. Under this head, too, would come the question of corners and trading in futures. The attempt to make any law which shall be efficacious in preventing men from engaging in the unholy work of speculation in food products especially, and in bringing pecuniary responsibility to operations in futures, will be found to tax the ingenuity of the law-maker. The difficulties in the way have been well stated by Justice Feenner, of the supreme court of Louisiana, in a recent decision, in which he presented the following points:

"(1) Sales of property for future delivery, with the bona fide intention and obligation to make actual delivery, are lawful contracts; but, if under the form of such a contract the real intent be merely to speculate upon the rise and fall of prices, and the goods are not to be delivered, but the contract to be settled on the basis of difference of prices, the transaction is a wager and is non-actionable.

"(2) In order to affect the contract the alleged illegal intent must have been mutual, and such intent by one party, not concurred in by the other, will not avail.

"(3) The law presumes lawful purpose until the contrary is proved, and when one party charges illegal intent the burden of proof is imposed upon him.

"(4) The validity of the contract depends upon the state of things existing at its date, and is not affected by subsequent agreements under which the parties voluntarily assent to a settlement on the basis of differences.

"(5) The mere fact that at the date of his contract the vendor had not the goods and had made no arrangements for obtaining them, and had no expectation of receiving them unless by subsequent purchase, does not suffice to impair the contract. The contrary doctrine once announced is now thoroughly overruled.

"(6) It follows that the failure to identify the particular goods sold does not affect the matter, because the sale is not of ascertained articles but of articles of a designated kind, quantity to be selected thereafter, which is a lawful contract when the obligations are reciprocal."

The difficulties so clearly stated by Justice Penner arise every time the attempt is made to prevent corners by law. It is not probable that trading in futures and the making up of corners on food products, or on products of manufacture, create or bring about industrial depression, but they are often serious aggravating accompaniments of such depression, and as such should be regulated, if it is in the power of law so to do, and it is to be hoped that some efficient means may be found which shall destroy the ability of men to work public harm through such kinds of speculation.

The Establishment of Boards of Arbitration to Settle Industrial Difficulties.—Industrial arbitration, and, in fact, all arbitration, is the result of high moral perception of right and wrong in the parties resorting to it. The laws of most states, if not all, offer facilities for the settlement of suits at law by sending the matter, on proper agreement of the parties involved, to a referee or referees. the decision of the referee or referees, when entered on the records of a court, having the binding force of a judgment by that court. To reach such a reference or arbitration, however, a party aggrieved brings an action in the ordinary way, by which the defendant is brought before a tribunal under the pains and penalties of law. The two parties then are before the court as parties, the defendant, brought there by the process of law served on him by an officer of the court, and he must appear or subject himself to judgment by default. When the two parties are before a court then the law allows them a more speedy way,

if they elect, to settle their difficulties than by trial; that is, by submitting the matter to a referee or referees. The adjustment of industrial difficulties in this way could have but one result, which, although an indirect result, would have all the features of a direct judgment at law. If the employer or the employ  s in an industrial establishment, feeling that they have cause of complaint, either against the other, could summon the offending party in the way described before a board of arbitration or any tribunal which might be established for the purpose of settling the difficulty, and after a hearing of all the facts bearing upon the case by both sides, or of *ex parte* testimony in case the party summoned did not appear, a decision should be entered having any binding force whatever, even for a definite and clearly-defined period, such decision must of necessity carry with it a penalty for non-conformance. The condition of things then leaves the parties in the position, if an employer, of being obliged to manufacture goods under conditions established by law; that is, he must pay wages which the law directs or suffer the penalty; if an employ  , he must accept the wages decreed by law, whether too low or otherwise, or incur the penalty imposed. This is simply establishing the rates of wages and prices of goods by law, and is a result which neither the employer nor the employ   can for a moment desire, although, without looking to the logical results of a board having the powers designated, such a board is freely demanded as a solution of labor troubles and a remedy for industrial depressions. Now, industrial arbitration, in order to be successful in the least degree, must be purely voluntary on the part of those intending to submit their grievances to the decision of others. The disposition to submit points in controversy to the decision of parties outside of those immediately concerned is almost arbitration in itself, and the parties are not far apart in their opinions. The creation of a board of arbitration by law, for the sake of having convenient machinery ready by which parties can have their differences adjusted by the good offices of arbitrators, would undoubtedly facilitate the growth of the spirit of arbitration, and in this direction the suggested remedy has vital force; but boards of arbitration created by law must be so constituted as not to make them obstacles to industrial peace instead of helps in bringing the workingman and his employer to a higher plane and a better appreciation of each other. It is the highest moral sentiment in man which leads him into arbitration, and when he is possessed of such sentiment he should have every facility given him for its activity. Industrial arbitration has done much in England toward preventing strikes, for in those trades where the men are most thoroughly organized, and where they have adopted or established by voluntary action boards of arbitration, the fewest strikes occur. The English statute relating to the establishment of such boards has not, however, been resorted to in many instances. In fact, to-day it is almost a dead letter, but it stands on the statute book as the reflection of a moral sentiment,

and as such has stimulated the growth of the idea of adjusting difficulties on clearly-constituted and well-defined rights and privileges of both parties to a controversy.

The Contraction of Credit.—A very potent cause in producing financial difficulties, resulting it may be in industrial depression—certainly in producing falling prices, the opening symptoms of industrial depression—is the great expansion of credit, and the remedy suggested by some of the bankers of the country of “checking the expansion of credit” has great force, but such check is exceedingly difficult of accomplishment. So far as law is concerned, the most direct way, probably, would be to make the collection of debts more difficult under legal process, thereby stimulating men to depend upon honorable action for the payment of debts and not upon the force of an execution. The difficulty is more in the way of free transaction of business than in practical legal obstacles.

A Sound Currency is often suggested as one of the remedies for industrial depressions, but industrial depressions have occurred with a sound currency existing as well as when the currency was demoralized in any way. The present industrial depression, novel in its completeness, as has been pointed out, not only originated but has progressed along with the existence of what popularly has been considered the finest banking system of the world, and with a currency as stable as coin. It cannot be denied, however, that both inflation and contraction disturb values, and thereby disturb industry, and certainly a sound currency is demanded by labor in order that the laborer may know the value of his earnings at all times, and it is demanded by the producer that he may calculate with reasonable accuracy the cost of production. So, while a sound currency might not prevent an industrial depression or remedy it after it had commenced, it is one of the regulating influences which help largely to modify the severity of any industrial depression. The discussion of purely financial crises or monetary disturbances would develop far different considerations.

Commercial and Mercantile Conditions.—Under this general classification many remedies have been suggested. They nearly all relate to the tariff, ocean transportation, foreign trade, navigation laws, and public works; but under none of the topics suggested in the above general classification of commercial and mercantile is there much if any opportunity for illustration, and the remedies suggested are very largely confined to theoretical views. Nearly all have some bearing on the question, and some an important bearing, but it is difficult to see how any of the features suggested under commercial and mercantile remedies could, if adopted, prevent an industrial depression, because industrial depressions occur under the conditions referred to in such suggestions. The general view under the chapter relating to the manufacturing nations of the world shows clearly the impossibility of preventing or remedying industrial depressions by the adoption of any

of the suggestions under this head. The opening of foreign markets would, of course, relieve this country of its surplus goods, but its surplus would then increase, and the relative position of the United States to the other nations in the family of manufacturing units would remain substantially the same. The increase of ocean transportation at a time when the means of transportation in Great Britain are a burden to that country, would hardly remedy depressions in this or any other commercial or industrial nation. The continuance of a protective tariff, or the abolition of a protective tariff, in the light of the conditions of other countries where as severe or severer depressions prevail than in this, would not remedy the depression nor prevent it. The judicious revision of the tariff, regulating duties on a just and equitable basis, in so far as it removes apprehension and puts all interests on a fairer basis, would be a remedial measure. Nor can a definite settlement of the tariff for a long series of years be accomplished, because changes in condition vary the cost of production, and would disturb any schedule which might be adopted. So far as a wide study of this subject would indicate, it seems that if a tariff having any of the elements whatever of protection in it is to be sustained, it should, as suggested under *causes*, be adjusted on a basis of the cost of production. Such adjustment would bring stability, would relieve manufacturers of anxiety, would satisfy labor, and would keep the treasury supplied with funds. Practically these are the ends sought, it is presumed, by any adjustment of the tariff, or even by its abolition. Any adjustment on the basis of the cost of production would inevitably result in a constant enlargement of the free list, and in so far would have a moral effect in the community which could not be otherwise than healthful.

The Distribution of Products.—Reform in the methods of distributing supplies would, if rightly directed, bring great relief to consumers. Coöperation, in its distributive form, is suggested as a remedy in this respect; but coöperative distribution is only a half measure, because this method is organized, economized, and made effective for consumers almost entirely, and producers as such are not materially benefited. This has been the case in England, where the Rochdale system has been carried to such magnificent proportions. Under this system the societies, as purchasers, keenly appreciate and follow the rule adopted by the private trader, buying at the lowest possible competition prices, and in their transactions with producers making use of the same expedients as those employed in private trade to drive good bargains and thus swell profits for the benefit of their customers. The maxim that “goods well bought are half sold” is kept constantly in view, and the importance of keen and shrewd buying is so well understood that employes possessing the requisite ability in this direction are highly prized and liberally paid. To the producer, therefore, the system of coöperative distribution offers no special advantages; on the other hand, it tends to lower prices, and in so far as

this is the result depression is aided, so that the work or progress resulting from coöperative distribution may react against consumers so far as they are producers; and the attempt to remove the middleman from the channels of trade fails. The coöperative stores pay competition prices and manufacture goods at the lowest possible labor cost, but its workmen, unless members of a coöperative store, can have no share in the profits. A recent writer indulges in the following criticism on the system :

"The coöperative wholesale society is a gigantic middleman; in its workshops it pays the lowest of competition wages; in the language of one of the workers in one of the shoe factories, 'the workmen have to work for what they can get; they know there is no true coöperation.' In its transactions with other producers it pays the lowest of competition prices; the profits made out of the retail prices are distributed amongst the members, labor is depressed. In short, it is as far from displaying a single feature of real coöperation as any private trader is who uses the weapons of competition and capitalism for his personal ends, regardless of the interests of others.

"The coöperative labor association, whose principal object is to recognize the combined interests of capital and labor in productive enterprise, is largely composed of members of the coöperative movement. In a conference just held, a resolution was passed asking 'the committee of the labor association to point out in a *fraternal* spirit to the wholesale coöperative society the grave injury they are doing to the cause of coöperation by their failure to carry out coöperative principles in their productive works, and to offer their services in placing the wholesale workshops upon a true coöperative basis.'"^a

So far, then, as relates to removing the evils which it is alleged spring from competition in the distribution of supplies, coöperative societies in England have not yet conspicuously succeeded. This does not, of course, indicate failure, for but little has been attempted in this direction, and the criticism is only introduced here to show that coöperative distribution without the alliance of coöperative production in some form is only a half measure as a remedy for bad distribution. The worst features of the distribution of goods are to be found, of course, in the enhanced price paid for products on account of the existence of intermediate handling by middlemen. A man who weaves cloth for which he receives less than 4 cents a yard as a producer, may have to pay 75 cents a yard as a consumer, the profit to the retailer in such case being at least 25 cents a yard; that is, the retailer, for handling one yard of goods receives 25 cents compensation, where the weaver, for weaving that same yard of cloth received less than 4 cents compensation. This single illustration is sufficient to show how far distribution is at fault in matters of depression and as an obstacle to the best interests of wage-receivers. In the production of goods cost has been greatly reduced by wise distribution of raw material; in fact, such distribution has been almost entirely reformed. The right honorable Mr. Goschen, M. P., in an address before the Manchester Chamber of Commerce in

June last, stated to his audience: "You all know that between Manchester and India there has been an elimination of a great many middlemen. Now, in London that is the case to a still more extraordinary extent. Let me tell you how the cotton trade, for instance, used to be conducted between New Orleans and the interior of Germany. The New Orleans man consigned his cotton to New York or to a New York house, the New York house consigned it to Liverpool, Liverpool to London, London to Hamburg, and Hamburg to spinners in the interior of Germany. But now the German spinner goes direct to New Orleans, the agent visits him in his home, and a number of intermediate profits and commissions are swept away." Mr. Goschen also makes a very wise remark when speaking of the comparatively small profits which have been made in manufacturing: "It is true of a great portion of the country (Great Britain) that trade in which profits have been small has been sound, and comparatively less has been lost by bad debts."

A careful examination in all directions, so far as production is concerned, whether of agricultural or manufactured products, leads clearly to the conclusion that production increases faster than population, so that one of the great economic problems in this matter is, not how shall production be made to keep pace with population, but how shall production be more equably distributed. Faulty distribution, then, and not over-production, is the truer term, but to the community involved over-production more clearly expresses the difficulty.

Coöperation, as applied to distribution, might remedy this difficulty by reducing the share secured by the party who handles the yard of cloth, but it would in no wise raise the amount received by the weaver for weaving the same goods; so that coöperation, in order to effect the best results to the two forces, the producer and the consumer, must join the two in the same transaction; that is, coöperation, in order to be complete, must, as a principle, surround production as well as consumption. As a partial remedial agency, coöperative distribution, when successful, is influential. Its completed relationship involves—

Profit-sharing.—This is not only an attractive but a most instructive theme. It is the whole principle of coöperation applied to the production of goods. Simple, pure coöperation cannot succeed when applied to manufacturing, for two reasons: First, under it the worker must wait till the last for the profits which may come to him in the place of wages, and if no profit comes his labor has gone for naught; on the other hand, the management would receive its share in salary at the outset, as a rule. In the second place, a score of men, operating on the simple basis of each doing a full day's work on some kind of production, cannot make such coöperation a success, because some out of the score will find themselves doing more than others, while those who produce less receive the same amount of profits. Human nature, individual development, skill, ambition, are opposed to such coöperation. The advantage the present system has over simple coöperative pro-

duction is that wages are paid from the outset and management waits for its compensation till the goods are sold and the books balanced. These fundamental difficulties prevent simple coöperation from being considered seriously as a remedy for industrial depressions or of labor troubles. This is the crude popular conception of coöperation in production as a plan to get rid of the employer and the wage system. The workers under it are supposed to employ a manager to be subject to their will, and, if necessary, hire capital at usual rates of interest. Then, pooling their services, they are to divide among themselves whatever profit there may be after fixed charges are paid. This scheme is purely visionary and utterly impracticable. Workers cannot wait till an indefinite future for their reward, neither can they run the risk of getting no reward at all. They must be guaranteed something, to be paid at frequent intervals, and the only party that can so guarantee is the capitalist employer, who alone can run risks and wait indefinitely for rewards. The capitalist employer may be an association of the workers themselves, but it is none the less an employer, a moral personality, possessing all the powers over individual workers that an individual employer would have. The more efficient and prosperous members become inevitably the controlling power in the association, and they will not consent to divide profits irrespectively of the value of services or to guarantee employment to inefficient members. The valid idea in this crude conception of coöperation is that in the degree that workmen develop the necessary qualifications and acquire the requisite capital they may become self-employers, and that, whether as self-employers or other wise, they should as workers participate in the profits of industry in proportion to their efficiency. This ideal is in process of realization through various forms of coöperative organization and profit-sharing. Industrial partnership instituted by capitalist employers, and coöperation instituted by capital-owning workmen, work toward the same result from different directions. Each has its own proper field, and each will probably acquire increasing prominence in social economy.^a

What is known as industrial copartnership, involving profit-sharing and embodying all the vitality there is in the principle of coöperation, offers a practical way of producing goods on a basis at once just to capital and to labor, and one which brings out the best moral elements of the capitalist and the workman. This system has been tried in many instances, and nearly always with success. The leading experiments in Europe are well known, among them being the system adopted by Leclair, a Parisian house painter; the methods in vogue with the Paris and Orleans Railway Company; the industrial partnership established by M. Godin at Guise, France; the experiments of Messrs. Briggs Brothers in Yorkshire, England, and other places. In the United States but little has been done in this direction, but wherever

^aCf. "Profit-sharing," Seventeenth Annual Report of the Massachusetts Bureau of Statistics of Labor.

the principle has been tried there have been three grand results: Labor has received a more liberal share for its skill, capital has been better remunerated, and the moral tone of the whole community involved raised. Employment has been steadier and more sure. The interest of all has been given for the general welfare. Each man feels himself more a man. The employer looks upon his employés in the true light, as associates. Conflict ceases and harmony takes the place of disturbances. Sometimes the experiments in profit-sharing have been abandoned for one cause or another, but so long as they have existed no strikes have occurred, and no labor troubles have been experienced. This feature, as a suggested remedy for industrial depressions, has so much in it of hope for the future that specimen articles of agreement, which have been adopted by manufacturing concerns, are printed for the benefit of all:

"First. On all orders executed during the year 1886, commencing January 1 ultimo, both capital and labor in proportion to the amounts or values contributed by each shall share in the net profits made on such orders during the year.

"Second. The net profits shall be determined in the following manner, viz: Out of the gross receipts, or from the capital employed shall be drawn, first, the wages of the men employed as journeymen, whether by day's work or piece-work, at the rates mutually agreed upon or otherwise established, which shall be paid monthly. Second, all other expenses of conducting the business, including superintendence, travelling expenses, clerk hire, taxes, insurance, and legal interest on the capital employed, shall then be deducted and paid out of the gross profits, and the balance remaining shall be treated as the net profits from which a dividend shall be declared and paid in manner and form as hereinafter provided.

"Third. The net profits having been determined, the entire amount shall be divided into three parts, one part to be appropriated and paid as a dividend to labor, one part to be appropriated and paid as a dividend to capital, and one-third to be reserved as a guarantee fund, to which fund shall be charged all losses by bad debts, or credits given for materials and labor during the year.

"Fourth. The labor dividend shall be made and paid before any dividend is paid to capital, and such payment shall be made at the end of each fiscal year, or as soon thereafter as the books can be written up, an inventory taken, and the net profits determined.

"Fifth. When the net profits have been determined as aforesaid, the same may be verified by a competent accountant or auditor, to be selected and agreed upon by the parties in interest; and when such accountant shall certify that the net profits have been correctly and fairly determined, then the dividends may be paid; but such accountant or auditor shall not be at liberty to disclose or make public any other facts concerning the business audited than a simple verification of the accounts and the sum total of the net profits for the year, available for the purpose of a dividend.

"Sixth. As the labor dividend is intended for labor only, no officer, superintendent, overseer, clerk, agent, or other employé drawing a salary, or however otherwise paid, nor any contractor or subcontractor, who, for their own account and profit, contract or agree for a "lump

sum" to do and perform the whole or certain specific parts of the work upon a building, monument, or other structure, such work being outside of and not subject to an established or agreed bill of prices, either for day's work or piece-work, therefore no such officer, superintendent, clerk, apprentice, or contractor will participate in any dividend paid to labor as hereinbefore stated.

"Seventh. No workman who during the year shall have been discharged for good and sufficient cause, such as drunkenness, insubordination, bad workmanship, etc., or who leaves the employment of the company without the consent of the superintendent in writing, shall be entitled to participate in any dividend of profits for the year during which such discharge has taken place.

"Eighth. No workman shall be deprived of his dividend who has been discharged arbitrarily or without good cause, or who has been discharged for the reason that the superintendent has not sufficient orders in hand to justify his further employment.

"Ninth. The value of all labor contributed to the business for the year shall, for the purpose of a dividend, be treated as so much capital, which capital, having been returned to the laborer in the form of wages, is still entitled to a share of the profits in just proportion to the amount contributed during the year in which such profits are made.

"Tenth. The true value of all labor contributed as aforesaid shall be determined by the amounts earned, and credited to each workman as wages for labor performed during the year; and the dividend to each will be declared upon the exact amount thus earned and credited to his individual account. For example, suppose the entire amount of capital employed to be \$100,000, and the entire amount paid for labor during the year to be \$150,000. Such an amount of capital employed and wages paid ought, with the added cost of transportation and delivery, to insure an output of \$400,000 and a net profit of \$25,000. Of this amount one-third, or \$8,333.33, would be credited to guarantee amount to provide for an assumed loss of about 2 per cent. on the entire output; the balance would remain for a dividend to capital and labor in proportion to their respective contributions, in this example: Two-thirds to capital, \$6,666.67, and three-fifths to labor, \$10,000, or 6.66 per cent. on each; thus the workman whose wages for the year amounts to \$1,000 would have a dividend of \$66.66, and he whose wages amounts to \$600 would have \$39.96. This dividend to labor would also be materially increased, owing to the fact that all those who take work by contract, superintendents, clerks, apprentices, etc., do not participate; so that if each man's labor be treated as so much capital contributed to the business, that capital is not only returned to its owner as wages at the end of each month, but at the end of the year it is again reckoned and rewarded with a high rate of interest.

"Eleventh. At the end of the year all outstanding accounts and bills receivable will be treated as good under the guarantee account, and therefore available in determining the net profits. If the guarantee account does not prove to be sufficient to cover the losses the amount must be made up by the stockholders, but when it is more than sufficient the surplus will belong to the stockholders.

"Twelfth. The control of the business must necessarily be in the hands of the stockholders. Men employed every day in mechanical labor cannot watch the markets, or possess the aptitude for business management on a large scale which is requisite to success; but they can do much in stopping the leaks caused by inefficient and bad workmanship.

"Thirteenth. All work done or money earned by the employment of machinery will be counted to the credit of labor and capital alike, and the profits made thereby will be subject to the same rule for distribution as for profits otherwise made.

"Fourteenth. No officer, director, or stockholder shall receive any salary or compensation, except for services actually rendered, and time actually spent in the service of the company, all of which shall be as fully stated as the amount of service contributed by any other person in the employment of the company.

"Fifteenth. The rate of wages per diem, the bill of prices for piece-work, and the number of hours to constitute a day's work shall be determined by mutual agreement on or before the 1st day of January in each year, and any disagreement which may arise during the year between the superintendent and workmen in regard to the same shall be settled by arbitration.

"Sixteenth. The rate of wages per diem and the bill of prices for piece-work shall not be reduced by the superintendent to affect any contract on hand, or taken upon the rate of wages or bill of prices prevailing at the time such contract was made, neither shall the rate of wages or bill of prices be advanced by the workmen to affect such contracts, and if so advanced the difference in cost by reason thereof may be adjusted in making up the dividends."

That inquirers may have the advantage of the experience of one of the oldest coöperative stock associations in the country, the by-laws of the Somerset (Mass.) Foundry are given:

"ARTICLE 1. This company shall be known by the name and title of the Somerset Coöperative Foundry Company. The business of this company shall be the manufacturing of iron castings.

"ART. 2. The capital stock of this company shall consist of \$15,000, divided into one hundred and fifty shares, of \$100 each, and no person shall be permitted to hold an amount to exceed ten shares.

"ART. 3. All stock shall be paid for within thirty days from the time of subscribing, and no one shall be a member of this association or entitled to vote in its meetings until he shall have paid an amount equal to one share.

"ART. 4. The salary of the officers shall be fixed at the yearly meetings.

"ART. 5. The officers of this company shall consist of a president, treasurer, and of not more than thirteen directors, who shall be styled a board of managers; they shall also have a corporation clerk and foreman.

"ART. 6. The board of managers shall have power to make such prudential by laws as they may deem proper for the management and disposition of the capital stock and business affairs of the company, not inconsistent with the laws of this state, as they may elect, and of the prescribing the duties of officers.

"ART. 7. It shall be the duty of the president to preside at all meetings of the directors and stockholders; he shall make and execute all contracts as directed by the board of managers; he shall be the authorized agent of the company, and his signature, when attested by the clerk, shall be the bond of the company.

"ART. 8. The clerk shall keep a correct record of the meetings of the stockholders and the board of managers; he shall be chairman of the finance committee, and perform such other duties as the board of managers may prescribe.

"ART. 9. The treasurer shall have charge of the funds of the company; he shall receipt for all money received by him, and deposit the same in such place as the board of managers may designate; before entering upon the duties of his office, he shall give bonds in the penal sum of \$5,000 for the faithful performance of the duties of his office, said bonds to be acceptable to the board of managers.

"ART. 10. There shall be annual meetings of the stockholders for the choice of officers held on the second Monday in January of each year, and special meetings of the stockholders may be called by the president at any time by giving seven days' notice of the time, place, and object of the meetings, by mail or otherwise, to all the stockholders, and in the absence or inability of the president to perform the duties of his office, it shall be the duty of the clerk, upon the application of five or more of the stockholders of the company in writing, setting forth the object of the meeting, to notify the stockholders in the same manner prescribed by the president.

"ART. 11. The board of managers shall hold regular meetings at least once in each month, or when ordered by the president, for the transaction of any business that may require their attention; it shall require a majority of the board to constitute a quorum for business.

"ART. 12. There shall be such distribution of the profits or earnings of the association among the workmen, purchasers, and stockholders as shall be described by the by-laws, at such times as therein prescribed and as often as once in twelve months, provided that no distribution shall be declared and paid until a sum equal to at least 10 per cent. of the net profits shall be appropriated for a contingent or sinking fund, until there shall have accumulated a sum equal to 30 per cent. in excess of such capital stock.

"ART. 13. Members employed by this company shall conduct themselves properly, and for the interest of the company; failing to do so they subject themselves to dismissal by the foreman or superintendent, and they shall not be again employed without the consent of two-thirds of the board of managers.

"ART. 14. In taking apprentices, sons of stockholders shall have the preference.

"ART. 15. No member shall be considered a working member except he shall hold five shares, but may be employed by the agent or foreman.

"ART. 16. This company shall not be bound to redeem any share of its capital stock within two years of the date of its corporation, and then it shall require four months' notice from any stockholder desiring the redemption of stock, but the same may be transferred at any time by any person acceptable to the board of managers.

"ART. 17. Any member having shares to sell shall first offer them to the company.

"ART. 18. No person not a stockholder shall be eligible to office.

"ART. 19. These by-laws may be altered or amended at any regular meeting of the stockholders, but any alteration shall require a vote of two-thirds of the stockholders present."

The system of profit-sharing means just this: That the proprietor receives for the capital he invests the ruling rate of interest, as part of the legitimate expense of production. He puts in as his share, other than capital, his managerial skill, his business accomplishments, and his knowledge of the industry in which he is engaged. The men who

work for him receive for their time and for the ordinary display of the skill required, the ordinary rate of wage. The workman also contributes, under profit-sharing or industrial copartnership, his liveliest interest, his best skill, and the care of tools and materials. For the skill, knowledge, and management of the proprietor, and for his being liable for the risks of the establishment, he is entitled to the larger share of profits under this system, while the workman, taking no risks of the enterprise beyond that of employment, is entitled to the smaller share of profits; but the two forces together arrange for a division of profits on some just and equitable basis. This system, simple in itself, humane in all its bearings, just in every respect to all the parties concerned, is the combination of all that is good in the wage system and all that is good in coöperation as applied to production. This compound system is becoming a necessity. Under it the workman receives something more than has been accorded to him on account of the improvements in machinery; he becomes a part of the individuality of the establishment; he is lifted to a higher scale; his intelligence, his moral character have weight in the establishment in proportion to his interest in it, and the whole concern has a better chance for prosperity, for weathering depressions, and for general happiness, than under the present wage system alone. It is this compound system as the outgrowth of the wage system, that was referred to in the introduction of this volume as being grander than the wage system. It is a pleasure to be able to state that the proprietors of many influential manufacturing establishments in this country are contemplating the organization of their establishments upon this basis. They see the success of the enterprises where this system already has been adopted, and are glad to follow in so just a path.

An indirect method of sharing profits is through benefits of various kinds, as insurance, schools, libraries, and beautiful surroundings, where such are maintained by employers out of their profits and enjoyed by employes as an addition to what their wages would purchase. Such participation helps to preserve the stability of labor, and has been offered to workmen by many proprietors and in different countries. The erection of healthful residences, which are rented to operatives at a low per cent. on cost, has been resorted to in many places. This is true of great productive establishments like the works of Herr Krupp, at Essen, in Rhenish Prussia; of several establishments at Millhausen; of Saltaire, founded by Sir Titus Salt, in Yorkshire, England; of the efforts of Fairbanks Brothers, at Saint Johnsbury, Vt.; of the Ludlow Company, in Massachusetts; of the Willimantic Linen Works and the Cheney Brothers Silk Works, in Connecticut; and of Pullman, in Illinois. All such undertakings help the workman up in his surroundings, and he secures indirectly a participation in the profits of production outside and beyond his wages; yet these are not experiments at profit-sharing, as such, but they lead to profit-sharing, and surely indicate the results which might accrue when the principle is carried to a greater extent.

Many peculiar institutions illustrative of this idea may be found in Belgium, especially in the coal, iron, and woollen districts. Most of these are voluntary in their origin, except the "Caisse de Prévoyance en faveur des Ouvriers Mineurs," which is obligatory upon every one receiving a mining concession. The object of this and of the numerous "Caisses particulières de Secours" is to set aside a sum equal to a certain per cent. (generally 3 per cent.) of each member's wages for provision against accidents, sickness, death, and for pensions for disabled and aged workmen. Besides these there are municipal institutions for similar purposes, such as baths, industrial, technical, day, Sunday, and night schools, and schools to educate laborers' daughters to become good and thrifty housewives, and many good and useful institutions, all voluntary in their character and chiefly supported, in many cases entirely supported, by individual manufacturing establishments for the benefit of their own laborers. The beneficiary institutions of the establishments "Société Anonyme de Marceneille et de Couillet" and Société Anonyme des Charbonnages de l'Ouest de Mons" will well repay the study and challenge the commendation of the social philosopher. Similar efforts are made by the Baltimore and Ohio Railroad Company and other great corporations in the United States, varying only in their character. Such institutions cannot be too highly praised, and their effect is almost instantly noticeable in the *morale* and spirit of the workman toward his employers. They have an excellent influence, and add much to the hopefulness and cheerfulness of labor. The laborer who participates in these benefits feels that, notwithstanding the wide social gulf which separates him from his employer his employer at least cares something for him. The voluntary character of such institutions make them all the more effective. They are certainly stimulative of an active appreciation of the benefits to be derived from a more direct system of profit-sharing. It must be concluded that participation by workmen in profits in addition to wages is a true harmonizer of the interests of capital and labor. It does, in fact, identify the interest of the employé with the interest of the employer. It converts their industrial association of employer and employés into a moral organism in which all the various talents, services, and desires of the component individuals are fused into a community of purpose and endeavor.^a

The Organization of Workmen, of Employers.—Nearly all the remedies suggested under the class "industrial" might be treated under "organization." The suggested remedies other than co-operation and profit-sharing relate to checking the tendency to over-production, the manufacture of goods on demand only, less production, more even production, the equalization of supply and demand, and the reduction of the hours of labor. It is probable that none of these features or suggested remedies can be experienced without organization, and yet or-

^aCf. Profit-sharing, Seventeenth Annual Report Massachusetts Bureau of Statistics of Labor.

ganization at the present day seems to constitute the chief bugbear in the public mind. The organization of capital or of the employing forces frightens the labor forces, and in return the rapid organization of labor forces frightens capital, and yet these two kinds of organization are suggested as remedies for industrial depressions, and it is probably true that much importance can be attached to the suggestions. Many manufacturers have said, in the course of this investigation, that if the employers in any industry would combine under an organization that should have positive coherence there would be no difficulty, so far as that industry is concerned, in regulating the volume of production in accordance with the demand, and that with this regulation of supply on a scientific foundation there would be no opportunity for labor troubles or depressions to occur. Such men recognize the fact of the too large supply of power machinery relative to the demand for the products of such machinery. On the other hand, workingmen almost universally are of the opinion that if they could organize on a strong, comprehensive basis, and in such a way as to preserve the coherency of their forces, they could regulate the rates of wages so that there would be uniformity and stability in their rates and uniformity in the hours of labor. If these results of the organization of employers on one hand and the organization of workmen on the other could be secured, depressions would have but little effect, either in severity or in duration. The manufacturers, so far as all the facts which can be observed indicate, are correct in their position. The workmen would be correct in their position if they embodied the amount of production in their view. This many of them do. There cannot, then, be much to fear in the complete organization of the employers on one hand and employes on the other; in fact there is great hope in such complete organization, for when organization is complete on each side, each force must treat with the other through intelligent representatives, and such treatment would result in doing away with passion, with excitement, and all that comes of the endeavor of a great body of men to treat with the proprietors individually. In addition to such a result would come the opportunity to reduce manufacturing, so far as production relative to supply is concerned, to a science. Any one great industry, under complete organization, can be regulated by all the forces acting understandingly and together, and it is only through such organization that production can be wisely regulated on the basis of necessity to supply the market. Hours of labor, through complete organization, can become uniform so far as uniformity is desirable. The rates of wages cannot be governed to a very full extent, because the rates of wages depend upon so many conflicting conditions; yet under complete organization, with the employer and employé working to one end, the success of the whole could secure far greater stability to the rates of wages and far greater stability to employment itself than can be secured under the present system, or, it might be said, under the present want of system. There

may be some theory in this consideration of what would be the result of complete organization, because no such complete organization exists; but the wisdom of many men, and those the most thoughtful among employers and employés, indicate the tendency of things, and these men have full faith that out of complete organization will come a better state of affairs than now exists. It was said under causes, in treating of machinery, that the workman had not yet received an equitable share of the results growing out of the free introduction of power machinery. Profit-sharing and organization of all the forces of industry would aid in securing a more just division of the profits of production, and one of the first advantages to be gained would be a reduction in the hours of labor, considered by many as the only solution for labor troubles and the great panacea for industrial depressions. Probably these ideas are extravagant as to the complete potency of a general reduction of the hours of labor, but it is certain that under the present conditions of manufacturing through the aid of machinery the hours of labor ought to be reduced, because the drafts on the human system necessary to enable machinery to be well operated is so much greater than under hand processes. The manufacturing world is doing all in its power to build up industrial schools. Evening schools are looked upon in great towns as among the chief blessings of the poor, but there is little use in the establishment of evening schools and all the auxiliaries of industrial education unless time is given for their use, and in such a way that the evening does not add to the fatigue of the day. Long hours of labor in the presence of power machinery and evening schools cannot well go hand in hand. The establishment of the hours of labor by law cannot bring any such benefit to the working masses as can come to them through a voluntary reduction of working time. Law so far, where hours of labor have been established by it, has followed the general reduction and not preceded it. The law has been the reflection of the public sentiment which said that the old time was too long. Under complete organization of labor and capital, as represented by the proprietor and the employés, the hours of labor could be adjusted on a basis far more satisfactory than by law.

Another benefit of such complete organization would be the enlargement of the freedom of contract. Much is said of the freedom of contract; that the workman has the same power to make contracts for his labor as the merchant has for the sale of his goods. This idea is purely fallacious, for the merchant need not sell his goods to-day, while the workman must his labor, and he is, as a rule, at the mercy of the purchaser instead of being free to keep his labor if he cannot get his price.

These are some of the features which would result, it is thought, from the fullest organization of the forces of industry, and it must be admitted by all that the results are to be desired.

The value of a sliding scale of wages, adjusted to meet the market price of products, has often been suggested as a remedy for disagree-

ments as to rates of wages. Such a scale requires not only great intelligence to adjust it, but excellent moral attributes to enable both sides to abide by it. Whatever of value there is in the adoption of a sliding scale, and there is undoubtedly virtue in such a measure, would result in the highest benefits of which it is capable under such complete organization as that indicated.

Quality as well as quantity would be an element affected by thorough organization, and the community at large would reap a benefit equal to that brought to the workman and to the capitalist. The constant division of labor, as it has grown through the past century on the one hand, has stimulated the combination of industrial forces on the other, and this combination, resulting from the still finer subdivision of labor, may be confidently expected in the future.

There is no contest between labor and capital, nor between the laborer and capitalist as such, but there is a contest between the latter as to the profits of capital and wages of labor, or, in simple terms, as to the profits each shall receive for his respective investment, and this contest will continue so long as the purely wage system lasts. It is absurd to say that the interests of capital and labor are identical. They are no more identical than the interests of the buyer and seller. They are, however, reciprocal, and the intelligent comprehension of this reciprocal element can only be brought into the fullest play by the most complete organization, so that each party shall feel that he is an integral part of the whole working establishment.

12854 LAB—19

CHAPTER V.

SUMMARY.

The endeavor throughout this report has been to present facts truthfully and fairly as brought to the attention of the Bureau through its original investigation, and to present the spirit of the testimony offered, fearlessly and impartially. It is therefore fitting that the treatment of the subject of industrial depressions, but more especially of the present industrial depression, should be summarized, that the reader may have whatever benefit accrues to one in the closest contact with the whole material collected.

Contemporaneousness and Severity of Depressions. It has been clearly shown that the depressions of the past in the manufacturing nations of the world have been nearly or quite contemporaneous in their occurrence. Summarized as to dates, the following table is deduced:

YEARS OF DEPRESSIONS.

Countries.	Years.											
The United States.....	.....	.....	1814	1818	1826	.....	1837	1847	1857	1867	1873	1882
Great Britain.....	1803	1810	1815	1818	1826	1830	1837	1847	1857	1866	1873	1881
France.....	1804	1810	1813	1818	1826	1830	1837	1847	1856	1866	1873	1882
Belgium.....	.....	.....	.....	.....	.....	.....	1837	1848	1855	1864	1873	1882
Germany.....	.....	.....	.....	.....	.....	.....	1837	1847	1855	.....	1873	1882

As to the severity of the present industrial depression and its duration, it can safely be asserted that the depression commenced early in 1882 and has continued until the present time. From the time the agents of the Bureau entered the field in prosecuting their investigations to the time they left it, a period of five or six months, there had been a marked change in the condition of business. At the present time (March, 1886), the effects of the depression are wearing away, and all the indications are that prosperity is slowly, gradually, but safely returning. The extent of the depression has not been so great as the popular mind has conceived it. An industrial depression is a mental and moral malady which seizes the public mind after the first influences of the depression are materially or physically felt. Falling prices, or any of the other influential causes by which an industrial depression is inaugurated, create apprehensiveness on the part of all classes, and the result is that the depression is aggravated in all its features. The severity of the present depression, while real and tangible, should be

considered as in part moral in its influences. The nations particularly involved, in their relation to each other, and as to severity stand in the following order: Great Britain, the United States, Germany, France, Belgium. It is worthy of remark that in those countries where machinery has not been largely adopted the depression in its peculiar features, as shown between 1882 and 1886, has not been felt to any material extent. In connection with the order of nations just given it is interesting to note the order of the same countries with reference to other points. In the rate of wages and earnings the rank is as follows: The United States, Great Britain, France, Belgium, Germany; in regard to the introduction of machinery, Great Britain, the United States, Belgium, France, Germany; in regard to the cost of production, the United States, Great Britain, France, Belgium, Germany; in regard to the cost of living, the United States, Great Britain, France, Belgium, Germany; in regard to the standard of living and the condition of work people, the United States, Great Britain, Belgium, France, Germany; with reference to popular education, the United States, Belgium, Germany, Great Britain, France; efficiency of labor, the United States, Great Britain, Belgium, France, Germany. If Italy had been added in these gradings it would have been named last in every instance, and Spain would have come after Italy. Austria would have preceded Italy in nearly every case, but Austria and Spain have not been included in the investigation, and Italy only to a certain extent.

Causes.—The causes of the present depression, so far as the United States is concerned and as they have been alleged, are varied indeed. The most potent and those most susceptible of illustration have been given. A chain of causes, or rather a combination of coacting causes, has probably worked to produce the present industrial depression in this country. These causes might work in a legitimate track. Good crops in England and other countries of Western Europe have caused considerable decrease in the exports of American breadstuffs. This has been aggravated by increased supplies of wheat from India by the Suez Canal, and to some extent by short crops here. The prohibition fully or in part of American meats by some countries has resulted in an injury of the export trade in food products. These influences tend in some degree to cripple the consuming power of the larger part of the population of the United States. The influence of the loss of exports in these ways to the United States has been aggravated through the cessation of railroad building, whereby a large unproductive force has been thrown upon the resources of the country, and the consuming power of which force has been necessarily reduced. Rapid immigration has aggravated the accumulated influences by a surplus of labor, which, with the presence of too great a supply of machinery, has rendered over-production easy. The decrease in Europe of the consumption of American cotton, in connection with the corresponding decrease in the United States, has helped to cripple the con-

suming power in the regions given to cotton-raising and thrown on the labor market a considerable number of laborers in those regions, this crippling coming at the same time of the increased importations and large numbers of immigrants, the other influences affecting the East. Thus these wide-reaching and widely-separated causes, in their initial influence, have combined to make the industrial depression of the past few years a reality. These influences have received contributions from the various minor causes described, and so the ball has rolled until the period of readjustment set in, and now, as that period of readjustment is passing away, prosperity dawns on the country. The lessons to be learned from these causes are what have been denominated as—

Remedies.—Probably no human device or combination of devices can be instituted powerful enough to prevent the recurrence of financial and commercial crises and industrial depressions, but this should not prevent men seeking devices which will mitigate the severity or shorten the duration of such calamities. When it is considered that each great manufacturing nation of the world is struggling for industrial existence as against the fierce competition of every other nation engaged in like pursuits, some of the questions which seem to absorb the minds of individual employers and employes seem trivial indeed; yet it must not be assumed, nor can it be assumed with reason, that the workmen of the United States or their employers wish to cripple in any degree the implements of industry. Therefore it is well to consider those remedial agencies which have been suggested. Which of these agencies can be reduced to practice in any degree?

There is no universal panacea, no absolute remedy for depressions; but if the public, through sentiment or through its agents in the legislatures of the country, can stimulate any methods for the mitigation of the severity and the shortening of the duration of the industrial depressions, certainly the effort should be made. And first, what can be done by legislation? With a healthy public opinion behind it, the law-making power can prevent to a great degree the unholy speculation in food products. It can indulge in a conservative care in extending railroad building and in facilitating the organization of manufacturing corporations. It can restrict the grants of the public domain. It can enact uniform bankruptcy laws, extending the provisions of such laws so that the poor man indebted but a few hundred dollars shall be able to readjust his financial affairs as readily as the larger debtor. It can abridge the provisions of laws relating to the collection of debts, to the end that the credit system shall not be abused. It can regulate transportation on a just and uniform basis, to the end that the stockholder shall not be robbed by ruinous competition, and that the workman may calculate with some degree of certainty the cost of his living and the producer the cost of production, so far as transportation is concerned. It can see to it that the tariff shall be regulated on the basis of justice and science and not on a haphazard basis which affects only individual interests and oftentimes inflicts general harm. It can see that a stable currency

be guaranteed, that the workman may know the purchasing power of his stipulated earnings. It can consider what reasonable and humane regulations may be adopted relative to immigration, and see to it that labor is not lowered either in standard or through earnings by the pernicious method of importations by contract; that every lawful endeavor be made to stimulate industrial education in all parts of the country; that the necessity shall be recognized of the industrial development of all parts of the land that there may result a legitimate increase in the consuming power of the people. It can stimulate the growth of the principle of industrial copartnerships through methods of profit-sharing by wise, permissive laws. Public sentiment can encourage the perfect organization of the forces involved, to the end that each shall treat with the other through representatives, and that production shall be regulated by the demand and not by the ill-advised eagerness of men to push their work individually, to the detriment of others; that there may come the universal adoption of shorter hours of labor, and demand that after capital and labor shall have received fixed and reasonable compensation, each for its investment, the net profits of production shall be divided under profit-sharing plans or methods, or through industrial copartnerships, to the end that all the forces of production shall be equally alive to mutual welfare. It can ask that the contracts of labor be as free as the contracts for commodities, under fair agreements for services rendered, to the end that the workman shall not be obliged to make contracts on terms not acceptable to him, and it can hold the party which declines to resort to the conciliatory methods of arbitration morally responsible for all the ill effects growing out of contest.

These remedial agencies or remedial methods, alleviatory in their design, are all possible by the reasonable acts of men. They are not chimerical schemes, but measures adapted to practical adoption. They demand simply a fair recognition of a part only of the truth bound up in the rule which insists that all men shall do unto others as they would have others do unto them.

APPENDIX A.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226. One or two leading articles made are mentioned for each establishment. For lack of space others are omitted.

AGRICULTURAL IMPLEMENTS (PLOUGHS), ILLINOIS.—ESTAB. No. 1.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	100	.....	\$2 50	.....
Foremen	2	.....	3 50	.....
Foremen	3	.....	3 00	.....
Foremen	2	.....	2 50	.....
Grinders	50	.....	1 75	.....
Laborers	125	.....	1 30	.....
Loaders	40	.....	1 50	.....
Moulders	25	.....	2 75	.....
Painters	50	.....	1 75	.....
Plough fitters	200	.....	2 00	.....
Polishers	15	.....	3 00	.....
Stockers	25	.....	3 00	.....
Wood workers	50	.....	1 50	.....

AGRICULTURAL IMPLEMENTS (PLOUGHS), ILLINOIS.—ESTAB. No. 2.

Time, 10 hours per day; — days the past year.

Blacksmiths	70	.....	\$2 40	.....
Grinders	30	.....	2 50	.....
Laborers	50	.....	1 25	.....
Moulders	30	.....	2 25	.....
Painters	30	.....	1 75	.....
Plough fitters	15	.....	2 25	.....
Wood workers	30	.....	1 75	.....
Wood-workers' helpers	70	.....	1 35	.....

AGRICULTURAL IMPLEMENTS (MOWERS, REAPERS, HARVESTERS), ILLINOIS.—ESTAB. No. 3.

Time, 10 hours per day; 270 days the past year.

Blacksmiths	3	.....	\$4 00	.....
Blacksmiths	3	.....	5 75	.....
Blacksmiths	4	.....	3 00	.....
Blacksmiths	2	.....	2 50	.....
Blacksmiths	9	.....	2 25	.....
Blacksmiths	11	.....	1 87	.....
Blacksmiths	14	.....	1 50	.....
Carpenters	3	.....	4 00	.....
Carpenters	4	.....	3 50	.....
Carpenters	5	.....	3 00	.....
Carpenters	8	.....	2 50	.....
Carpenters	13	.....	2 25	.....
Carpenters	26	.....	2 00	.....
Carpenters	33	.....	1 75	.....
Carpenters	7	.....	1 50	.....

AGRICULTURAL IMPLEMENTS (MOWERS, REAPERS, HARVESTERS), ILLINOIS.—ESTAB. No. 3—Concl'd.

Time, 10 hours per day; 270 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Draughtsman	1	.....	\$4 00	.....
Draughtsmen	2	.....	2 75	.....
Draughtsmen	2	.....	2 25	.....
Engineer	1	.....	4 50	.....
Engineer	1	.....	2 25	.....
Foreman	1	.....	5 00	.....
Foremen	2	.....	4 50	.....
Foremen	2	.....	3 25	.....
Foremen	7	.....	3 00	.....
Foremen	3	.....	2 50	.....
Laborers	3	.....	2 25	.....
Laborers	28	.....	2 00	.....
Laborers	35	.....	1 75	.....
Laborers	51	.....	1 60	.....
Laborers	136	.....	1 50	.....
Laborers	51	.....	1 37	.....
Laborers	234	.....	1 25	.....
Laborers	9	.....	1 12	.....
Laborers	11	.....	1 00	.....
Laborers	a18	.....	75	.....
Laborers	a14	.....	60	.....
Machinists	5	.....	4 00	.....
Machinists	4	.....	3 50	.....
Machinists	20	.....	3 00	.....
Machinists	135	.....	2 70	.....
Machinists	57	.....	2 50	.....
Machinists	60	.....	2 25	.....
Machinists	64	.....	2 00	.....
Machinists	27	.....	1 75	.....
Machinists	33	.....	1 55	.....
Moulders	32	.....	4 00	.....
Moulders	27	.....	3 75	.....
Moulders	6	.....	3 50	.....
Moulders	14	.....	3 25	.....
Moulders	14	.....	3 00	.....
Moulders	4	.....	2 87	.....
Painter	1	.....	4 00	.....
Painter	1	.....	3 75	.....
Painters	6	.....	3 50	.....
Painters	18	.....	3 00	.....
Painters	7	.....	2 75	.....
Painters	6	.....	2 50	.....
Painters	4	.....	2 25	.....
Painters	13	.....	2 00	.....
Painters	2	.....	1 75	.....
Painters	5	.....	1 50	.....
Pattern makers	3	.....	3 00	.....
Pattern makers	5	.....	2 75	.....
Pattern maker	1	.....	2 50	.....
Teamsters	2	.....	1 75	.....
Teamsters	3	.....	1 62	.....
Teamsters	2	.....	1 50	.....
Undesignated	1	.....	2 50	.....
Watchmen	8	.....	2 00	.....

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

AGRICULTURAL IMPLEMENTS (PLOUGHS), INDIANA.—
ESTAB. No. 4.

Time, 10 hours per day; 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices	a2		\$0 75	
Beam and handle makers	5		1 75	
Blacksmith	1		2 75	
Blacksmiths	3		2 50	
Blacksmith	1		2 25	
Blacksmiths	3		2 00	
Blacksmiths	4		1 70	
Blacksmiths' helpers	6		1 40	
Blacksmiths' helpers	5		1 25	
Blacksmiths' helpers	2		1 13	
Bolt cutter	a1		70	
Bolt cutters	a4		50	
Carpenters	2		2 00	
Carpenter	1		1 50	
Casting cleaners	6		1 38	
Cinder millers	4		1 25	
Core maker		a1		\$0 90
Core makers		a7		65
Cupola heaters	2		2 00	
Cupola helpers	3		1 25	
Cupola men	3		1 50	
Engineer	1		3 00	
Fireman	3		1 63	
Fireman	1		1 38	
Fitter	1		2 15	
Fitters	2		1 65	
Fitters	2		1 50	
Fitter	1		1 40	
Fitter	1		1 25	
Foremen	4		3 00	
Foremen	3		2 50	
Foremen	5		2 25	
Foremen	2		2 00	
Foreman	1		1 75	
Foreman	1		1 63	
Gatekeeper	1		1 00	
Grinders	2		1 70	
Grinders	76		1 50	
Grinders	17		1 38	
Grinder	1		1 25	
Grinder	a1		60	
Grinders	a3		50	
Iron breakers	4		1 50	
Japanners	3		1 13	
Japanners	a2		45	
Laborers	3		1 30	
Laborers	37		1 15	
Laborers	2		1 00	
Laborer	a1		50	
Loaders	2		2 12	
Loaders	12		1 25	
Machinists	2		2 25	
Machinists	2		2 00	
Machinist's helper	1		1 50	
Mason	1		2 50	
Mason's helper	1		1 25	
Millers	3		1 25	
Moulders	2		2 00	
Moulders	16		1 78	
Moulders	143		1 63	
Moulder	1		1 15	
Oiler	1		1 50	
Oiler	1		1 15	
Oven girl		a1		50
Painter	1		2 25	
Painter	1		2 00	
Painters	4		1 75	
Painters	2		1 60	
Painter	1		1 50	

AGRICULTURAL IMPLEMENTS (PLOUGHS), INDIANA.—
ESTAB. No. 4—Concluded.

Time, 10 hours per day; 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Painter	1		\$1 25	
Painters	a3		65	
Pattern maker	1		3 00	
Pattern maker	1		2 38	
Pattern maker	1		2 25	
Pattern makers	5		2 00	
Pattern makers	2		1 63	
Pattern maker	1		1 50	
Point fitters	4		2 20	
Point fitter	1		1 75	
Point fitters	2		1 45	
Point fitter	1		1 35	
Point fitter	1		1 25	
Pollishers	3		2 75	
Pollishers	3		2 10	
Pollishers	5		2 00	
Pollishers	12		1 50	
Pollishers	4		1 13	
Pollishers	a4		52	
Sand mixer	1		1 50	
Shaper	1		1 75	
Stablemen	3		1 25	
Stone dresser	1		2 25	
Stone dresser	1		2 00	
Stone dresser	1		1 50	
Sulky fitter	1		1 75	
Sulky fitter	1		1 50	
Sulky fitters	7		1 25	
Sulky fitters	a2		1 00	
Sulky fitter	a1		55	
Teamster	1		1 50	
Teamsters	5		1 25	
Top-house man	1		2 00	
Top-house helper	1		1 25	
Undesignated	a2		45	
Watchmen	3		1 75	
Watchman	1		1 38	
Wood workers	5		1 50	
Wood workers	9		1 25	
Wood-worker's helper	a1		1 00	

AGRICULTURAL IMPLEMENTS (THRESHING MACHINES AND FARM ENGINES), INDIANA.—ESTAB.
No. 5.

Time, 10 hours per day; — days the past year.

Blacksmiths	3		\$3 50
Blacksmiths' helpers	3		1 40
Boiler maker	1		3 25
Boiler makers	4		1 50
Carpenters	2		2 50
Core maker	1		1 70
Core makers	2		1 40
Draughtsman	1		2 80
Draughtsman	1		2 00
Engineer	1		2 00
Laborer	1		1 40
Laborers	10		1 20
Machinists	13		3 00
Machinists' helpers	a10		3 25
Moulders	4		3 00
Moulders	15		2 50
Moulders' helpers	a4		3 50
Pattern maker	1		3 50
Pattern makers	7		1 50

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

AGRICULTURAL IMPLEMENTS (PLOUGHS), KENTUCKY.—ESTAB. No. 6.

Time, 10 hours per day; 275 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	4		\$2 50	
Blacksmiths' helpers	6		1 20	
Foremen	3		3 00	
Grinders	15		1 60	
Laborers	6		1 20	
Moulders	8		2 00	
Wood workers	4		2 50	

AGRICULTURAL IMPLEMENTS (PITCHFORKS), MAINE.—ESTAB. No. 7.

Time, 9 hours per day; 300 days the past year.

Foreman	1		\$2 75	
Foremen	2		2 25	
Grinders	12		1 75	
Hammerman	1		1 50	
Heel turner	1		2 25	
Laborers	7		1 25	
Painters	3		1 50	
Platers	3		2 00	
Polishers	6		1 75	
Repair hand	1		1 75	
Temperers	2		3 00	
Welders	4		2 00	
Welders' helpers	3		1 13	

AGRICULTURAL IMPLEMENTS (HOES AND FORKS), NEW YORK.—ESTAB. No. 8.

Time, 10 hours per day; 300 days the past year.

Engineer	1		\$2 00	
Finisher	1		2 40	
Finishers	3		1 60	
Foreman	1		3 00	
Foreman	1		2 25	
Grinders	7		1 60	
Hammerman	1		3 60	
Hammerman	2		2 40	
Hammerman	1		2 00	
Hammerman	2		1 60	
Hand fitter	1		3 00	
Handle fitters	10		1 60	
Laborers	2		1 60	
Machinist	1		3 00	
Plater	1		2 40	
Plater	1		1 70	
Polishers	6		1 00	
Polishers	6		1 40	
Pressman	1		3 20	
Pressman	1		2 40	
Teamster	1		1 60	
Temperer	1		2 00	
Temperers	2		1 48	
Undesignated	10		1 60	

AGRICULTURAL IMPLEMENTS (MOWERS, REAPERS, HARVESTERS, BINDERS), OHIO.—ESTAB. No. 9.

Time, 10 hours per day; — days the past year.

Blacksmiths	30		\$2 40	
Blacksmiths' helpers	25		1 40	
Bolt and nut makers	21		1 54	
Casting cleaners	22		1 62	
Core makers	10		1 26	

AGRICULTURAL IMPLEMENTS (MOWERS, ETC.), OHIO.—ESTAB. No. 9.—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cupola men	10		\$1 42	
Laborers	86		1 85	
Machinists	201		1 95	
Moulders	33		2 50	
Moulders' helpers	13		1 65	
Painters	68		2 16	
Wood workers	144		1 69	

AGRICULTURAL IMPLEMENTS (MOWERS, REAPERS), OHIO.—ESTAB. No. 10.

Time, 10 hours per day; 250 days the past year.

Blacksmiths	58		\$1 87	
Laborers	17		1 35	
Loaders	27		1 10	
Machinists	100		1 73	
Moulders and helpers	39		1 97	
Painters	66		1 47	
Watchmen	3		1 37	
Wood workers	73		1 61	

AGRICULTURAL IMPLEMENTS (MOWERS, REAPERS), OHIO.—ESTAB. No. 11.

Time, 10 hours per day; 200 days the past year.

Blacksmiths	5		\$1 90	
Blacksmiths' helpers	5		1 50	
Grinders and polishers	15		1 50	
Laborers	15		1 30	
Machinists	20		2 00	
Moulders	10		2 50	
Painters	5		1 50	
Wood workers	20		1 75	

AGRICULTURAL IMPLEMENTS (MOWERS, REAPERS, FARM ENGINES), OHIO.—ESTAB. No. 12.

Time, 10 hours per day; — days the past year.

Blacksmiths	9		\$2 50	
Blacksmiths	18		2 00	
Blacksmiths' helpers	35		1 40	
Boiler makers	8		2 00	
Boiler-makers' helpers	12		1 35	
Carpenters	27		1 80	
Carpenters	10		1 50	
Fitters	24		2 50	
Fitters	12		1 80	
Foremen	13		4 00	
Grinders and polishers	30		2 25	
Laborers	102		1 90	
Loaders	14		1 40	
Machinists	21		2 75	
Machinists	64		2 25	
Machinists	20		1 60	
Machinists' helpers	20		1 40	
Painters	16		1 80	
Painters	87		1 45	
Setters-up	87		2 25	
Setters-up helpers	8		1 40	
Wood workers	24		1 60	
Wood workers	16		1 60	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

AGRICULTURAL IMPLEMENTS (FARM ENGINES, THRESHERS), OHIO.—ESTAB. NO. 13.

Time, 10 hours per day; 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	15		\$3 50	
Blacksmiths	15		2 00	
Blacksmiths' helpers	15		1 40	
Belt lacers	7		1 30	
Boiler makers	20		2 50	
Boiler makers	30		1 75	
Boiler-makers' help- ers	20		1 35	
Bolt and nut makers	15		1 00	
Draughtsmen	10		2 80	
Erectors	10		3 50	
Erectors	15		1 65	
Foremen	5		4 00	
Foremen	5		3 50	
Foremen	2		2 50	
Foremen	2		2 00	
Laborers	102		1 25	
Loaders	10		1 40	
Lumbermen	5		1 30	
Machinists	20		3 50	
Machinists	15		3 00	
Machinists	35		2 00	
Machinists' helpers	20		1 40	
Moulders	30		2 37	
Moulders' helpers	40		1 40	
Painters	15		2 50	
Painters	15		1 50	
Pattern makers	10		2 50	
Setters-up	15		3 00	
Setters-up	18		1 40	
Teamsters	30		1 40	
Tool makers	5		1 75	
Watchmen	3		1 60	
Wood workers	15		2 00	
Wood workers	25		1 40	

AGRICULTURAL IMPLEMENTS (HAY RAKES, TEDDERS), OHIO.—ESTAB. NO. 14.

Time, 10 hours per day; 300 days the past year.

Foreman	1		\$3 50	
Laborers	4		1 25	
Machinists	10		1 75	
Moulders and helpers	10		1 90	
Painters	5		1 40	
Wood workers	12		1 80	

AGRICULTURAL IMPLEMENTS (HAY RAKES, TEDDERS), OHIO.—ESTAB. NO. 15.

Time, 10 hours per day; — days the past year.

Blacksmiths	5		\$1 75	
Iron workers	35		1 60	
Painters	10		1 75	
Wood workers	15		1 50	

AGRICULTURAL IMPLEMENTS (HAY RAKES, TEDDERS), OHIO.—ESTAB. NO. 16.

Time, 10 hours per day; 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	9		\$1 90	
Iron workers	23		1 37	
Laborers	6		1 42	
Moulders and helpers	12		1 67	
Painters	18		2 19	
Setters-up	19		1 62	
Wood workers	26		1 72	

AGRICULTURAL IMPLEMENTS (PLOUGHS), OHIO.—ESTAB. NO. 17.

Time, 10 hours per day; — days the past year.

Blacksmiths	3		\$1 75	
Engineer	1		1 50	
Grinders	2		1 73	
Laborers	3		1 25	
Moulders	4		2 40	
Painters	2		1 50	
Polisher	1		1 75	
Pattern maker	1		3 50	
Undesignated	2		1 90	
Wood workers	3		1 75	

AGRICULTURAL IMPLEMENTS (PLOUGHS), OHIO.—ESTAB. NO. 18.

Time, 10 hours per day; 275 days the past year.

Blacksmiths	5		\$2 50	
Blacksmiths' helpers	5		1 50	
Dressers	5		2 50	
Foreman	1		2 50	
Grinders and polish- ers	10		2 50	
Laborers	4		1 50	
Moulders	15		3 00	
Moulders' helpers	15		1 50	
Painters	4		2 25	
Painters	4		1 50	
Pattern makers	3		2 50	
Plough fitters	10		2 00	
Stackers	5		2 50	

AGRICULTURAL IMPLEMENTS (PLOUGHS), OHIO.—ESTAB. NO. 19.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	4		\$2 00	
Fitters	2		1 50	
Grinders	2		1 80	
Laborers	6		1 25	
Moulders	10		2 25	
Painters	5		1 90	
Polishers	2		1 90	
Wood workers	4		1 90	

^aYouth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

AGRICULTURAL IMPLEMENTS (PLOUGHS), PENNSYLVANIA.—ESTAB. No. 20.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	8		\$2 50	
Blacksmiths' helpers	8		1 75	
Foreman	1		4 00	
Laborers	9		1 80	
Laborers	30		1 25	
Moulders	22		1 80	
Painter	1		2 50	
Plough makers	2		2 50	

ARMS AND AMMUNITION (REVOLVERS), MASSACHUSETTS.—ESTAB. No. 21.

Time, 10 hours per day; 302 days the past year.

Assemblers	24		\$2 75	
Bench workers	20		2 75	
Bench workers	10		1 75	
Bench workers	10		1 50	
Carpenters	2		3 00	
Drillers	25		1 75	
Engineer	1		2 75	
Fireman	1		2 25	
Foreman	7		4 50	
Forgers	10		2 00	
Inspectors	25		3 00	
Machinists	3		4 00	
Machinists	22		3 25	
Milling men, hand	50		1 75	
Milling men, machine	150		1 40	
Platers	2		2 75	
Platers	5		1 75	
Polishers	9		2 50	
Polisher	1		2 00	
Profilers	40		2 00	
Stackers	15		2 75	
Yard hands	5		1 75	

ARTISANS' TOOLS (SAWS), INDIANA.—ESTAB. No. 22.

Time, 10 hours per day; 260 days the past year.

Engineer	1		\$2 00	
Fireman	1		1 25	
Grinders	3		3 50	
Laborers	20		1 25	
Laborers	41		1 00	
Machinists	3		3 00	
Saw filers	10		2 00	
Saw makers	12		3 00	
Saw makers	22		1 50	
Saw makers	26		1 00	

BOOTS AND SHOES (MEN'S BOOTS AND SHOES), CALIFORNIA.—ESTAB. No. 23.

Time, 10 hours per day; 270 days the past year.

Buffers	4		\$1 25	
Burnishers	4		1 37	
Button sewer		1		\$1 37

BOOTS AND SHOES (MEN'S BOOTS AND SHOES), CALIFORNIA.—ESTAB. No. 23—Concluded.

Time, 10 hours per day; 270 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Button-hole makers	2		\$1 25	
Channellers	3		1 37	
Cutter	1		3 00	
Cutters	12		1 37	
Dressers	5		1 25	
Edge setter	1		2 00	
Edge setters	2		1 50	
Edge trimmers	3		1 50	
Engineer	1		2 00	
Finishers	3		1 25	
Fireman	1		1 25	
Heelers	3		1 50	
Heelers	3		1 25	
Lastors	35		1 37	
Packers	3		1 50	
Pasters		2		\$1 37
Pasters	5		1 25	
Porters	4		1 37	
Sewing-machine operators	24		1 37	
Sewer, McKay machine	1		1 50	
Treers	5		1 25	
Undesignated	5		1 00	
Vampers	2		2 58	

BOOTS AND SHOES (MEN'S AND WOMEN'S BOOTS AND SHOES), CALIFORNIA.—ESTAB. No. 24.

Time, 10 hours per day; 270 days the past year.

Buffers	2		\$1 37	
Burnishers	9		2 25	
Button-hole makers	6		1 62	
Channeller	1		2 00	
Cutters	14		3 00	
Cutters	10		1 25	
Dressers	7		2 25	
Dressers	3		2 00	
Edge setters	5		2 00	
Edge trimmers	6		2 00	
Engineer	1		3 75	
Finishers	8		2 50	
Fitters	2		2 25	
Fitters	4		2 00	
Foremen	6		5 00	
Heelers	6		2 50	
Heelers	3		1 00	
Ironers		2		\$1 37
Lastors	22		1 75	
Nailers	8		1 62	
Packers	4		2 25	
Pasters		3		1 25
Porter	1		2 25	
Sewer, McKay machine	1		2 00	
Sewing-machine operators		32		1 50
Stampers	2		2 37	
Teamster	1		2 00	
Treers	5		3 00	
Vampers	4		2 25	
Watchman	1		2 00	

* Youth.

† Employés all Chinese, except one cutter, two vampers, two pasters, and one button sewer.

‡ Chinese.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 246.

BOOTS AND SHOES (MEN'S SHOES), ILLINOIS.—
ESTAB. No. 25.

Time, 10 hours per day; 275 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burnishers	6		\$3 00	
Cutters	8		2 67	
Finishers	6		2 67	
Fitters		60		\$1 50
Heelers	10		2 17	
In-seamers	30		2 33	
Lasters	8		2 25	
Rounders	8		2 50	
Sewers, hand	30		2 33	
Trimmers	10		2 50	
Treers	6		2 33	

BOOTS AND SHOES (WOMEN'S SHOES), KENTUCKY.—
ESTAB. No. 26.

Time, 10 hours per day; 235 days the past year.

Bottomers	20		\$2 50	
Cutters	4		2 33	
Fitters	3	30	2 50	\$1 00
Lasters	6		2 00	

BOOTS AND SHOES (WOMEN'S AND GIRLS' SHOES),
MARYLAND.—ESTAB. No. 27.

Time, 10 hours per day; 240 days the past year.

Burnishers	2		\$1 33	
Cutters	6		1 67	
Edge setters	2		1 33	
Edge trimmer	1		2 50	
Edge trimmer	1		2 00	
Finisher	1		1 67	
Fitters		30		\$0 83
Foremen	3		3 33	
Heeler	1		1 50	
Laster	1		2 00	
Lasters	7		1 67	
Sewers, Goodyear machine	3		2 50	
Shankers	3		1 67	
Shanker's helper	a1		50	
Undesignated	3		1 16	

BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES),
MARYLAND.—ESTAB. No. 28.

Time, 10 hours per day; 270 days the past year.

Bottomers	14		\$1 92	
Cutters	2		1 85	
Cutters' helpers	a2		55	
Fitters		14		\$1 16
Lasters	4		1 85	
Sewers, hand	9		1 33	

a Youth.

b Children.

BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES),
MARYLAND.—ESTAB. No. 29.

Time, 10 hours per day; 270 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bottomers	20		\$1 50	
Burnishers	2		1 67	
Burnishers' helpers	a2		67	
Cutters	5		2 33	
Cutters' helpers	a4		92	
Engineer	1		2 00	
Edge setter	1		2 00	
Edge setter's helper	a1		50	
Finishers	a2		83	
Fitters	4		2 00	
Fitters	3	44	1 42	\$0 83
Fitters' helpers	a2		50	
Fitters' helpers	b2		42	
Foreman	1		5 00	
Heeler	1		1 50	
Heeler's helper	a1		50	
Lasters	8		1 33	
Levellers	2		1 42	
Packer	a1		67	
Sandpaperers	2		1 67	
Sewers, Goodyear machine	3		1 67	
Shankers	a3		78	
Shavers	2		1 67	
Sock liners		2		83
Tacker	1		1 50	
Trimmers	2		2 50	
Turners	2		1 33	

BOOTS AND SHOES (MEN'S SHOES), MARYLAND.—
ESTAB. No. 30.

Time, 10 hours per day; 264 days the past year.

Burnishers	3		\$1 50	
Cutters	6		1 67	
Cutters' helpers	a3		75	
Engineer	1		2 00	
Fitters		40		\$0 83
Foremen	4		2 50	
Finishers	a25		83	
Sewers, hand	40		1 50	
Stock keepers	3		1 67	

BOOTS AND SHOES (INFANTS' SHOES), MASSACHU-
SETTS.—ESTAB. No. 31.

Time, 10 hours per day; — days the past year.

Cutters	4		\$1 50	
Lasters	2		1 50	
Sewing-machine operators		20		\$1 00

BOOTS AND SHOES (INFANTS' SHOES), MASSACHU-
SETTS.—ESTAB. No. 32.

Time, 10 hours per day; — days the past year.

Fitters	9		\$1 50	
Sewing-machine operators		40		\$1 00

c Bottoming done outside by contract.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BOOTS AND SHOES (YOUTH'S SHOES), MASSACHUSETTS.—ESTAB. NO. 33.

Time, 10 hours per day; 292 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cutters	3		\$2 23	
Cutters	3		2 05	
Cutter's helper	21		93	
Engineer	1		2 50	
Finisher	1		2 40	
Lasters	1		1 97	
Packer	1		2 23	
Sewing-machine operators		8		\$1 20
Sewing-machine operators	3		2 40	
Shankers	2		2 23	
Undesignated		3		85
Undesignated		23		68

BOOTS AND SHOES (WOMEN'S AND YOUTH'S SHOES), MASSACHUSETTS.—ESTAB. NO. 34.

Time, 10 hours per day; 306 days the past year.

Cutter	1		\$1 25	
Heeler	1		1 75	
Sewing-machine operators		2		\$1 00
Undesignated	10		1 25	

BOOTS AND SHOES (WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 35.

Time, 10 hours per day; — days the past year.

Bottomers	47		\$2 12	
Cutter	1		1 50	
Cutters		3		\$1 25
Cutters	29		2 23	
Cutters		13		73
Cutters		8		1 02
Cutters	23		1 88	
Cutters	5		1 96	
Cutters' helpers	25		93	
Edge setters	5		2 09	
Finishers		25		67
Finishers		6		1 14
Finishers	81		1 77	
Finishers	8		1 35	
Heelers	17		1 86	
Heelers' helpers	24		50	
Peggers and nailers	9		1 35	
Sewing-machine operators		46		1 40
Sewing-machine operators		219		93
Sewing-machine operators	4		2 13	

BOOTS AND SHOES (WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 36.

Time, 10 hours per day; 282 days the past year.

Cutters	6		\$2 50	
Cutters	5		2 25	
Cutters	3		2 00	
Cutter	1		1 50	
Dressers		4		\$1 17

BOOTS AND SHOES (WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 36—Concluded.

Time, 10 hours per day; 282 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Dressers	9		\$1 92	
Edge setters	5		1 74	
Edge trimmers	4		2 15	
Engineer	1		2 00	
Finishers	16		2 10	
Foreman	1		2 25	
Foreman	1		2 50	
Foreman	4		3 00	
Lasters	14		1 79	
Machinists	2		2 50	
Packer	1		2 00	
Packer	1		1 75	
Peggers	7		2 25	
Sewing-machine operators		19		\$1 51

BOOTS AND SHOES (WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 37.

Time, 10 hours per day; 242 days the past year.

Cutters	10		\$2 25	
Dressers		2		\$1 50
Edge setter	1		2 15	
Edge trimmers	2		3 00	
Engineer	1		2 50	
Finishers	2		2 65	
Finisher	1		2 50	
Finisher	1		2 25	
Foremen	2		3 00	
Heelers	2		2 75	
Lasters	10		2 10	
Levellers	2		1 50	
Nailer	21		1 00	
Sewers, hand	8		1 60	
Sewer, McKay machine	1		2 60	
Sewing-machine operators	2	11	2 00	1 80
Skiver	1		2 00	
Tackers	2		2 70	
Triers	3		1 85	

BOOTS AND SHOES (WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 38.

Time, 9 hours per day; — days the past year.

Cutter	1		\$2 75	
Cutters	10		2 50	
Cutters	2		2 00	
Edge setters	2		2 60	
Edge trimmers	2		2 65	
Engineer	1		2 20	
Finishers	4		2 75	
Fitters		30		\$1 20
Heelers	4		1 25	
Heelers	2		2 00	
Heeler	1		2 20	
Laborers	7		1 75	
Lasters	16		2 48	
Packer	1		2 50	
Teamsters	1		1 25	
Triers	7		1 50	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BOOTS AND SHOES (WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 39.

Time, 10 hours per day; 285 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burnishers	3		\$2 44	
Burnishers	8		1 75	
Cutters	44		1 35	
Cutters	30		1 87	
Cutters	38		1 48	
Dressers		5		\$1 30
Edge trimmers	5		2 23	
Finishers	32		2 10	
Heelers	2		2 33	
Lasters	60		2 13	
Nailers	4		2 54	
Packers	3		2 33	
Peggers	6		2 37	
Scourers	7		1 84	
Sewing-machine operators	34		1 63	
Stringers		5		79
Treers	16		1 60	
Varnishers		3		1 11

BOOTS AND SHOES (MEN'S BOOTS AND SHOES), MASSACHUSETTS.—ESTAB. NO. 40.

Time, 10 hours per day; — days the past year.

Cutters	3		\$1 90	
Edge setters	5		2 33	
Finishers	2		2 62	
Fitters	2		2 32	
Heelers	4		2 33	
Lasters	4		1 97	
Packer	1		1 25	
Paster		1		\$1 42
Paster		21		70
Sewing-machine operator	1		2 67	
Sewing-machine operators	4		2 00	
Sewing-machine operators		3		1 00
Sewers, hand	11		2 25	
Treers	2		2 25	

BOOTS AND SHOES (WOMEN'S BOOTS), MASSACHUSETTS.—ESTAB. NO. 41.

Time, 10 hours per day; — days the past year.

Fitters	12		\$2 50	
Sewing-machine operators		50		\$1 33

BOOTS AND SHOES (WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 42.

Time, 10 hours per day; — days the past year.

Bottomers	67		\$2 23	
Cutters	22		2 43	
Fitters		25		\$1 50
Packers	13		2 00	
Sewing-machine operators		63		1 40

BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 43.

Time, 10 hours per day; 290 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burnishers	2		\$2 00	
Cutters	4		1 97	
Cutters	7		2 37	
Cutters	14		2 50	
Edge setters	3		2 37	
Edge trimmers	5		2 50	
Engineer	1		3 00	
Finishers	10		1 87	
Finisher	21		62	
Finishers		5		\$1 40
Foreman	1		3 33	
Heel filer		1		1 17
Heeler	1		2 50	
Lasters	34		2 25	
Levellers	2		2 00	
Nailer	1		2 50	
Packer	1		3 00	
Peggers	2		2 75	
Sandpaperers	2		2 00	
Sewer, McKay machine	1		2 50	
Sewing-machine operators		36		1 37
Tackers		2		1 25
Treers	10		1 80	
Vampers	8		2 25	

BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES), MASSACHUSETTS.—ESTAB. NO. 44.

Time, 10 hours per day; 240 days the past year.

Assorters	2		\$2 75	
Buffers	3		2 00	
Burnisher	1		2 00	
Cutters	11		3 25	
Cutters	5		1 75	
Cutters	2		1 50	
Edge setters	2		2 50	
Edge trimmers	2		2 50	
Engineer	1		2 00	
Heelers	2		2 25	
Lasters	22		2 17	
Nail stikers	23	23	75	\$6 50
Packers	2		2 00	
Peggers	2		2 50	
Screw nailer	1		2 00	
Sewing-machine operators		15		1 60
Shanker	1		2 50	
Skiver	1		2 00	
Stringers		2		1 50
Tackers	4		1 25	
Tacker		1		1 25
Teamster	1		1 50	
Treers	2		10	2 50 1 25

BOOTS AND SHOES (MEN'S BOOTS), MASSACHUSETTS.—ESTAB. NO. 45.

Time, 8 hours per day; 233 days the past year.

Cutter	1		\$2 50	
Finishers	2		3 00	
Fitters	2		1 75	
Heeler	1		1 50	
Lasters	2		1 50	
Sewing-machine operators	3		1 50	
Treer	1		2 50	
Vamper	1		1 33	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BOOTS AND SHOES (MEN'S SHOES), MASSACHUSETTS.—ESTAB. No. 46.

Time, 10 hours per day; 281 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Assorters	4		\$2 02	
Assorters	2		2 50	
Burnishers	4		2 00	
Cutters	14		2 50	
Cutters	3		2 25	
Cutters	5		2 00	
Cutters	9		1 50	
Cutters	5		1 25	
Dressers		2		\$1 35
Edge setters	3		2 50	
Edge trimmers	6		2 50	
Edge varnishers		2		1 25
Engineer	1		2 25	
Eyeleters		2		1 50
Finishers		21		1 87
Finishers	2		1 87	
Finishers		2		1 50
Foremen	3		3 25	
Heelers	2		2 50	
Heelers	5		2 00	
Heel breaster	a1		87	
Heel-nail setters		a3		50
Lasters	45		3 25	
Leather splitters	2		1 50	
Levellers	2		1 50	
Machinist	1		3 75	
Nailer, machine	1		3 75	
Packers	2		2 25	
Pasters	a2		60	
Peggers, machine	2		2 75	
Scourers	5		2 25	
Screw nailers	2		2 75	
Sewing-machine operators	20		1 62	
Skivers	2		1 75	
Skivers		2		1 25
Trees	9		2 25	
Vamper	1		1 50	
Vamper	a1		75	
Watchmen	1		2 00	

BOOTS AND SHOES (MEN'S SHOES), MASSACHUSETTS.—ESTAB. No. 47.

Time, 10 hours per day; 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cutters	15		\$2 00	
Edge setters	10		2 16	
Engineer	1		3 00	
Fitters	6		2 65	
Foreman	1		3 67	
Heeler	1		2 50	
Heeler's helper	a1		50	
Lasters	8		2 50	
Levellers	1		2 50	
Leveller's helper	a1		50	
Pasters and finishers	1	8	2 00	\$1 54
Sewers, hand	9		2 50	
Sewing-machine operator	1		3 33	
Sewing-machine operator	1		3 00	
Sewing-machine operator	1		2 50	
Sewing-machine operator		1		2 00
Sewing-machine operators		30		1 58
Stitchers, hand	7		2 83	
Vamper	1		2 16	

BOOTS AND SHOES (MEN'S BOOTS), MASSACHUSETTS.—ESTAB. No. 48.

Time, 10 hours per day; 278 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Assorter	1		\$3 00	
Assorter	1		2 50	
Assorters	2		2 25	
Assorter	1		2 00	
Binder		1		\$1 25
Box paperer	1		1 40	
Bottom stamper	1		1 50	
Burnishers	3		1 75	
Burnishers	5		1 50	
Cobbler	1		2 00	
Cutters	2		2 75	
Cutters	12		2 50	
Cutters	8		2 25	
Cutters	6		1 50	
Cutters	9		1 10	
Cutter	1		1 00	
Edge blacker	a4		1 00	
Edge trimmer	4		2 50	
Engineer	1		2 75	
Eyelet setters	a2		1 25	
Fitters	2		2 62	
Fitters	2		2 25	
Fitter	1		1 75	
Gilders	2		1 50	
Heel attachers	2		3 00	
Heel breaster	1		2 00	
Heel compressor	1		2 75	
Heel filer	1		1 75	
Heelers	a8		1 25	
Heel trimmers	2		2 00	
Inspector	1		2 00	
Laborers	10		1 00	
Last pullers	2		1 75	
Lasters	68		2 15	
Leather wetter	1		1 50	
Levellers	2		1 75	
Moulder	1		2 25	
Nailers, hand	4		2 00	
Nailers, shank	2		1 75	
Nailer, Standard machine	1		2 00	
Nailer, Union machine	1		2 00	
Nail stickers		4		60
Packers	4		1 25	
Peggers, hand	6		1 75	
Peggers, machine	3		2 50	
Sandpaperers	4		1 50	
Sewing-machine operators	4		1 75	
Sewing-machine operators		a6		80
Sewing-machine operators		2		1 25
Sewing-machine operators		6		1 50
Shanker	1		3 00	
Shank stripper	1		2 00	
Shoe stringer		a1		80
Siders	7		2 00	
Skivers	2		1 25	
Skivers		3		1 00
Sole layers	2		3 00	
Splitters, sole	2		1 75	
Splitter, row		1		1 00
Splitter, welt		1		1 00
Tacker	a1		1 10	
Tackers		2		1 00
Tackers		4		90
Trees	44		1 75	
Turners	4		2 00	
Turner, row		a1		80
Vamper		2		1 75
Watchman	1		2 00	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYEES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BOOTS AND SHOES (SLIPPERS), MASSACHUSETTS.—
ESTAB. No. 49.

Time, 10 hours per day; 240 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bottomers.....	50		\$2 50	
Fitters.....		25		\$1 33

BOOTS AND SHOES (MEN'S SHOES), NEW JERSEY.—
ESTAB. No. 50.

Time, 10 hours per day; 300 days the past year.

Apprentices.....	a25		\$0 58	
Bottomers and finishers.....	125		2 50	
Cutters.....	25		2 50	
Fitters.....	25		2 25	
Fitters.....		60		\$1 06

BOOTS AND SHOES (YOUTH'S SHOES), NEW YORK.—
ESTAB. No. 51.

Time, 10 hours per day; 300 days the past year.

Beaders.....	9		\$1 67	
Blockers.....	2		2 25	
Bottomers.....	35		1 92	
Brusher.....	1		2 00	
Buffers.....	2		1 44	
Buffers.....	2		1 33	
Burnisher.....	1		2 29	
Button makers.....		2		\$1 00
Button-hole makers.....		15		1 17
Channeller.....	1		1 58	
Channellers.....	2		1 00	
Closers.....		7		1 04
Cutters.....	26		2 67	
Cutter.....	1		2 42	
Cutters.....	25		2 00	
Cutters.....	2		1 50	
Cutters' helpers.....	a10		67	
Edge setters.....	2		2 67	
Edge trimmers.....	7		2 50	
Elevator tender.....	1		1 67	
Fitter.....	1		1 67	
Foremen.....	2		3 00	
Foremen.....	2		2 50	
Heelers.....	4		1 50	
Laborers.....	23		1 25	
Lasters.....	35		2 50	
Lasters.....	2		1 50	
Levellers.....	3		2 67	
Measurer.....	1		1 50	
Moulder.....	1		2 67	
Pasters.....		5		1 00
Sandpaperer.....	1		1 33	
Scourers.....	2		1 00	
Screw nailer.....	1		2 67	
Seam rubber.....		1		1 00
Seat wheelers.....	2		1 17	
Sewers, McKay machine.....	3		2 67	
Sewing-machine operators.....		150		1 33
Sewing-machine operators.....		10		96
Sewing-machine operators.....		8		83
Skivers.....	2		1 67	
Stayers.....		2		1 17

BOOTS AND SHOES (YOUTH'S SHOES), NEW YORK.—
ESTAB. No. 51—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Stock rollers.....	a2		\$0 83	
Tacker.....	1		2 17	
Tackers.....	4		1 67	
Timekeepers.....	3		1 00	
Turners.....	2		1 50	
Undesignated.....	a1		96	
Undesignated.....	a3		67	
Undesignated.....		a20		\$0 67
Vampers.....	11		1 75	

BOOTS AND SHOES (YOUTH'S SHOES), NEW YORK.—
ESTAB. No. 52.

Time, 10 hours per day; 300 days the past year.

Beaders.....	5		\$1 58	
Blockers.....	2		2 25	
Bottomers.....	19		1 92	
Brusher.....	1		2 00	
Buffer.....	1		1 44	
Buffer.....	1		1 33	
Burnisher.....	1		2 29	
Button-hole makers.....		10		\$1 00
Button makers.....		2		1 00
Channeller.....	1		2 00	
Channeller.....	1		1 67	
Closers.....	5		1 00	
Cutters.....	17		2 33	
Cutters.....	17		2 17	
Cutter.....	1		1 50	
Cutters' helpers.....	a8		67	
Edge setter.....	1		2 67	
Edge-setters' helpers.....	2		1 16	
Edge trimmers.....	5		2 43	
Fitter.....	1		1 50	
Foremen.....	2		3 00	
Foreman.....	1		2 67	
Foreman.....	2		2 50	
Foreman.....	1		2 00	
Heelers.....	2		1 50	
Laborers.....	7		1 25	
Lasters.....	19		2 33	
Lasters.....	2		1 50	
Levellers.....	2		2 67	
Measurer.....	1		2 25	
Measurer.....	1		1 50	
Moulder.....	1		2 67	
Packers.....	a8		67	
Pasters.....		3		1 00
Sandpaperer.....	1		1 33	
Scourer.....	a1		83	
Screw nailer.....	1		2 50	
Seam rubber.....		1		1 00
Seat wheelers.....	1		1 17	
Sewers, McKay machine.....	2		2 67	
Sewing-machine operators.....		75		1 33
Sewing-machine operators.....		8		83
Skivers.....	2		1 67	
Tacker.....	1		2 25	
Tackers.....	3		2 00	
Timekeepers.....	2		91	
Turners.....	2		1 50	
Undesignated.....	a1		1 75	
Vampers.....	8		1 75	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 228.

BOOTS AND SHOES (YOUTHS' SHOES), NEW YORK.—
ESTAB. No. 53.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Readers	2		\$1 50	
Blocker	1		2 29	
Bottomers	12		2 04	
Brusher	1		1 67	
Butler	2		1 58	
Burnisher	1		2 25	
Button marker		1		\$0 96
Channellers	2		1 67	
Closers		8		1 29
Cutters	7		2 33	
Cutters	8		2 17	
Cutters' helpers	a4		75	
Edge setter	1		2 67	
Edge-setters' helpers	2		1 17	
Edge trimmers	2		2 42	
Foreman	2		2 67	
Foreman	1		2 50	
Foreman	2		2 00	
Heelers	2		1 50	
Heelers' helpers	3		1 00	
Heelers' helpers	a2		79	
Laborers	2		1 00	
Lasters	11		2 37	
Laster	1		1 50	
Leveller	1		2 50	
Measurer	1		2 17	
Moulders	2		2 67	
Packers	a4		79	
Sandpaperer	1		1 42	
Scourers	a2		83	
Seam rubber		1		1 00
Seat wheeler	1		1 17	
Sewing-machine op- erators		38		1 83
Sewing-machine op- erators		9		1 15
Sewing-machine op- erators		4		1 00
Sewing-machine op- erators		3		83
Skivers	2		1 67	
Tacker	1		3 00	
Time-keeper	a1		92	
Turners	2		1 50	
Undesignated		2		75
Vampers	4		1 75	

BOOTS AND SHOES (WOMEN'S AND YOUTHS' SHOES),
NEW YORK.—ESTAB. No. 54.

Time, 10 hours per day; 300 days the past year.

Reader	1		\$1 50	
Blocker	1		3 25	
Bottomers	10		2 08	
Brusher	1		1 67	
Butler	1		1 48	
Burnisher	1		2 25	
Button marker		1		\$0 96
Button sewer	1		1 50	
Channeller	1		1 67	
Cutters	12		2 33	
Edge setters	2		2 17	
Edge trimmer	1		2 50	
Edge trimmer	1		2 38	
Finishers		5		82
Foreman	3		2 50	
Foreman	3		2 00	
Heelers	2		1 50	
Lasters	8		2 46	
Leveller	1		2 46	

BOOTS AND SHOES (WOMEN'S AND YOUTHS' SHOES),
NEW YORK.—ESTAB. No. 54—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Measurer	1		\$1 86	
Packer	a1		92	
Sandpaperer	1		1 48	
Seat wheeler	1		1 29	
Sewing-machine op- erators	2		1 75	
Sewing-machine op- erators		30		\$1 25
Sewing-machine op- erators		2		83
Skiver	1		1 67	
Skiver	1		1 00	
Tacker	1		2 00	
Timekeeper	1		92	
Turner	1		1 67	
Undesignated	1		83	

BOOTS AND SHOES (YOUTHS' SHOES), NEW YORK.—
ESTAB. No. 55.

Time, 10 hours per day; 300 days the past year.

Readers	6		\$1 58	
Blocker	1		2 25	
Bottomers	15		1 92	
Brusher	1		2 00	
Butler	2		1 53	
Burnisher	1		2 29	
Button-hole maker		8		\$1 00
Button markers		2		1 00
Channeller	1		2 00	
Channeller	1		1 67	
Closers	4		1 65	
Cutters	13		2 38	
Cutters	15		2 17	
Cutters' helpers	a5		67	
Edge setter	1		2 79	
Edge trimmers	8		2 42	
Filter	1		1 50	
Foreman	3		2 67	
Foreman	1		2 50	
Foreman	1		2 00	
Heelers	2		1 50	
Laborers	5		1 29	
Lasters	15		2 33	
Laster	1		1 50	
Leveller	1		2 67	
Leveller's assistant	a1		75	
Measurer	1		2 00	
Measurer	1		1 50	
Moulder	1		2 67	
Packers	a6		67	
Pasters		2		1 00
Sandpaperer	1		1 33	
Scourers	a2		83	
Screw naller, McKay machine	1		2 50	
Seam rubbers		3		1 00
Seat wheeler	1		1 17	
Sewing-machine op- erators		68		1 33
Sewing-machines op- erators		6		83
Sewer, McKay ma- chine	1		2 67	
Skivers	3		1 67	
Tackers	3		2 00	
Timekeepers	a2		83	
Turners	3		1 50	
Undesignated	5		1 25	
Vampers	6		1 75	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BOOTS AND SHOES (YOUTHS' SHOES), NEW YORK.—
ESTAB. No. 56.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beaders	8		\$1 67	
Blockers	2		2 25	
Bottomers	27		1 92	
Brusher	1		2 00	
Buffers	2		1 44	
Buffers	2		1 83	
Burnisher	1		2 29	
Button-hole makers		12		\$1 00
Button markers		2		1 00
Channellers	2		2 00	
Channeller	1		1 58	
Closers		6		1 04
Cutters	20		2 62	
Cutters	22		2 00	
Cutters	3		1 50	
Cutters' helpers	a9		2 67	
Edge setters	2		2 67	
Edge trimmers	7		2 50	
Fitter	1		2 00	
Fitter	1		1 67	
Foreman	1		3 00	
Foreman	1		2 75	
Foremen	2		2 50	
Heelers	4		1 50	
Lasters	27		2 42	
Lasters	2		1 50	
Levellers	3		2 67	
Measurer	1		1 50	
Moulder	1		2 67	
Packers	a10		67	
Pasters		4		1 00
Sandpaperer	1		1 33	
Scourers	a2		1 00	
Screw naller	1		2 00	
Seam rubber		1		1 00
Seat wheelers	2		1 17	
Sewing-machine operators	8	125	2 00	1 33
Sewing-machine operators		17		83
Skivers	2		1 67	
Stayers		2		1 17
Stock rollers	a2		88	
Tacker	1		2 25	
Tackers	4		1 67	
Timekeepers	a2		92	
Turners	2		1 50	
Undesignated	1		3 00	
Vampers	10		1 70	

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 57.

Time, 10 hours per day; 300 days the past year.

Beaders	4		\$1 54	
Blocker	1		2 29	
Bottomers	12		1 88	
Brusher	1		1 67	
Buffers	2		1 33	
Burnisher	1		2 29	
Button-hole makers		5		\$1 00
Button marker		1		1 00
Channeller	1		2 00	
Channeller	1		1 50	
Closers	4		1 25	
Cutters	21		2 33	
Cutters' helpers	a4		65	
Edge setter	1		2 63	
Edge-setters' helpers	3		1 17	
Edge trimmers	3		2 50	
Fitter	1		1 87	

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 57—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foremen	2		\$2 79	
Foreman	1		2 50	
Foremen	2		2 00	
Foreman	1		1 75	
Heelers	2		1 50	
Laborers	7		1 00	
Lasters	13		2 25	
Laster	1		1 67	
Leveller	1		2 46	
Measurer	1		2 42	
Measurer	1		1 50	
Moulders	2		2 62	
Packer	1		1 08	
Packers	a3		75	
Pasters		2		\$1 00
Scourers	a2		83	
Screw naller, McKay machine	1		2 67	
Seam rubber		1		1 00
Seat wheeler	1		1 33	
Sewing-machine operators		59		1 33
Sewing-machine operators		4		83
Sewer, McKay machine	1		2 79	
Skivers	3		1 67	
Tackers	2		2 00	
Timekeeper	2		83	
Turners	2		1 50	
Undesignated	a2		75	
Vampers	4		1 75	

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 58.

Time, 10 hours per day; 300 days the past year.

Beaders	3		\$1 53	
Blocker	1		2 29	
Bottomers	12		1 92	
Brusher	1		1 67	
Buffer	1		1 46	
Buffer	1		1 33	
Burnisher	1		2 25	
Button-hole maker		5		\$1 00
Button marker		1		1 00
Channeller	1		2 00	
Channeller	1		1 50	
Closers	3		1 24	
Cutter	1		2 50	
Cutters	13		2 29	
Cutters	3		2 18	
Cutters' helpers	a5		67	
Edge setters	1		2 67	
Edge-setter's helpers	2		1 17	
Edge trimmers	3		2 50	
Fitter	1		1 87	
Foremen	2		2 67	
Foreman	1		2 50	
Foremen	3		2 00	
Heelers	2		1 50	
Laborers	9		1 00	
Lasters	12		2 33	
Laster	1		1 58	
Leveller	1		2 58	
Measurer	1		1 50	
Moulders	2		2 67	
Packers	a4		79	
Pasters		2		1 00
Sandpaperer	1		1 33	
Scourers	a2		83	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 58.—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Screw nailer	1		\$2 67	
Seam rubber		1		\$1 00
Seat wheeler	1		1 17	
Sewer, McKay machine	1		2 67	
Sewing-machine operators		36		1 33
Sewing-machine operators		19		1 25
Sewing-machine operators		4		83
Skivers	2		1 67	
Tacker	1		2 25	
Tacker	1		2 00	
Timekeepers	a3		83	
Turners	2		1 50	
Undesignated	5		1 00	
Undesignated	a2		92	
Undesignated	a3		67	
Vampers	4		1 67	
Watchman	1		1 00	

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 59.

Time, 10 hours per day; 300 days the past year.

Beaders	4		\$1 58	
Blocker	1		2 25	
Bottomers	12		1 92	
Brusher	1		1 67	
Buffers	2		1 33	
Burnisher	1		2 29	
Button-hole makers		5		\$1 00
Button marker		1		1 00
Channeller	1		2 00	
Channeller	1		1 50	
Closers	3		1 00	
Cutters	22		2 25	
Cutters' helpers	a4		67	
Edge setter	1		1 67	
Edge-setters' helpers	5		1 17	
Edge trimmers	3		2 42	
Fitter	1		1 67	
Foremen	3		2 67	
Foremen	2		2 25	
Heelers	2		1 50	
Laborers	5		1 00	
Lasters	12		2 33	
Laster	1		1 50	
Leveller	1		2 50	
Measurer	1		2 42	
Measurer	1		1 50	
Moulder	1		2 67	
Packers	a5		75	
Pasters		3		1 00
Sandpaperer	1		1 33	
Scourers	a2		75	
Screw nailer	1		2 67	
Seam rubber		1		1 00
Seat wheeler	1		1 17	
Sewing-machine operators		59		1 33
Sewing-machine operator		1		83
Sewer, McKay machine	1		2 67	
Skivers	2		1 67	
Tackers	2		2 00	
Timekeepers	2		83	
Turners	2		1 50	
Undesignated	5		1 08	
Vampers	4		1 67	

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 60.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beadler	1		\$1 50	
Blocker	1		2 25	
Bottomers	9		2 04	
Brusher	1		1 67	
Buffer	1		1 48	
Burnisher	1		2 25	
Button marker		1		\$0 96
Button sewer	1		1 50	
Channeller	1		1 75	
Cutters	10		2 33	
Cutter	1		1 96	
Edge trimmers	2		2 33	
Errand boy	a1		75	
Finishers		4		80
Foremen	3		2 50	
Heeler	1		1 50	
Laborers	4		1 00	
Lasters	7		2 48	
Leveller	1		2 40	
Measurer	1		2 04	
Sandpaperer	1		1 50	
Scourer	1		1 08	
Scraper		1		83
Sewing-machine operator	1		1 33	
Sewing-machine operator		1		88
Sewing-machine operators		25		1 25
Skiver	1		1 67	
Tacker	1		2 00	
Timekeeper	a2		83	
Turner	1		1 67	
Undesignated	3		1 00	
Watchman	1		1 42	

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 61.

Time, 10 hours per day; 300 days the past year.

Beaders	3		\$1 54	
Blocker	1		2 29	
Bottomers	11		2 00	
Brusher	1		1 67	
Buffers	2		1 50	
Burnisher	1		2 25	
Button marker		1		\$1 00
Channeller	1		2 00	
Channeller	1		1 70	
Closers	3		1 24	
Cutters	15		2 25	
Edge trimmers	2		2 50	
Edge setter	1		2 67	
Edge setters' helpers	2		1 17	
Foremen	3		2 50	
Foremen	2		2 00	
Heelers	2		1 50	
Heelers' helpers	a7		53	
Laborers	8		1 00	
Lasters	10		2 28	
Laster	1		1 50	
Leveller	1		2 50	
Measurer	1		2 33	
Moulders	2		2 66	
Packers	a3		79	
Sandpaperer	1		1 42	
Scourers	a2		53	
Screw nailer	1		2 67	
Seam rubber		1		1 00
Seat wheeler	1		1 17	
Sewing-machine operators				1 35

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is *not* a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 113 to 226.

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 61—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Sewing-machine operators		3		\$1 21
Sewing-machine operators		6		1 03
Sewing-machine operators		4		83
Sewer, Mackay machine	1		\$2 67	
Skivers	2		1 75	
Sweeper		1		79
Tackers	2		2 00	
Timekeeper	a1		87	
Turners	2		1 50	
Vampers	4		1 75	
Watchman	1		1 00	

BOOTS AND SHOES (WOMEN'S BOOTS), NEW YORK.—
ESTAB. No. 62.

Time, 10 hours per day; 300 days the past year.

Reader	1		\$1 57	
Blocker	1		2 29	
Bottomers	9		2 08	
Brusher	1		1 67	
Buffer	1		1 46	
Burnisher	1		2 29	
Button marker		1		\$0 98
Button sewer	1		1 50	
Channeller	1		1 00	
Cutters	13		2 29	
Cutter	1		2 00	
Edge setters	2		2 62	
Edge trimmers	2		2 46	
Foreman	1		2 67	
Foremen	2		2 50	
Foremen	2		1 96	
Heeler	1		1 50	
Laborers	5		1 00	
Lasters	8		2 50	
Laster	1		1 50	
Leveller	1		2 46	
Moulder	1		2 50	
Packers	a3		79	
Sandpaperer	1		1 46	
Scourer	1		1 00	
Seam rubber		1		1 00
Sewing-machine operators		41		1 33
Sewing-machine operators		2		83
Skiver	1		1 58	
Tacker	1		2 00	
Timekeeper	1		92	
Turner	1		1 50	
Undesignated	2		87	
Undesignated	a3	a3	71	65

BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES),
NEW YORK.—ESTAB. No. 63.

Time, 10 hours per day; 300 days the past year.

Readers	6		\$1 58	
Blocker	1		2 25	
Bottomers	18		1 92	
Buffer	1		1 44	
Buffer	1		1 33	
Burnisher	1		2 29	
Button-hole makers		10		\$1 00
Button markers		3		1 00

BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES),
NEW YORK.—ESTAB. No. 63—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Channeller	1		\$2 00	
Channeller			1 67	
Closers		3		\$1 00
Cutters	24		2 33	
Cutters' helper	a1		75	
Edge setters	2		2 62	
Edge-setters' helpers	2		1 17	
Edge trimmers	6		2 43	
Fitter	1		1 50	
Foreman	1		2 79	
Foremen	2		2 67	
Foreman	1		2 00	
Foreman	1		2 17	
Heelers	2		1 50	
Laborers	5		1 00	
Lasters	17		2 33	
Laster	1		1 50	
Laster	1		2 42	
Leveller	1		75	
Leveller's assistant	a1		2 00	
Measurer	1		1 50	
Messenger	1		2 00	
Moulder	1		67	
Packers	a4			1 00
Packers		3		
Sandpaperer	1		1 33	
Scourers	a2		83	
Screw nailer	1		2 50	
Seam rubber		2		1 00
Seam wheeler	1		1 17	
Sewing-machine operators		72		1 33
Sewing-machine operators		6		83
Sewer, McKay machine	1		2 67	
Skivers	3		1 67	
Tacker	3		2 00	
Timekeeper	2		83	
Turners	2		1 50	
Vampers	7		1 75	

BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES),
NEW YORK.—ESTAB. No. 64.

Time, 10 hours per day; 300 days the past year.

Readers	2		\$1 50	
Blocker	1		2 29	
Bottomers	11		2 08	
Brusher	1		1 67	
Burnisher	1		2 25	
Button sewer	1		1 50	
Channeller	1		1 67	
Cutters	15		2 29	
Edge setters	2		2 62	
Edge trimmers	2		2 50	
Foreman	1		2 67	
Foremen	2		2 50	
Foremen	2		3 00	
Heeler	1		1 83	
Heeler	1		1 50	
Laborers	4		1 00	
Lasters	10		2 42	
Laster	1		1 50	
Leveller	1		2 50	
Moulder	1		2 58	
Packers	a3		79	
Sandpaperer	1		1 43	
Scourer	1		1 00	
Seam rubber		1		\$1 00
Seam wheeler	1		1 17	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYEES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

**BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES),
NEW YORK.—ESTAB. No. 64.—Concluded.**

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Sewing-machine operators	3	50	\$1 71	\$1 33
Sewing-machine operators		3		83
Skivers	2		1 67	
Timekeepers	2		92	
Turner	1		1 50	
Tacker	1		2 00	
Undesignated	a10		81	

**BOOTS AND SHOES (WOMEN'S SHOES), OHIO.—
ESTAB. No. 65.**

Time, 10 hours per day; — days the past year.

Apprentices	a15		\$1 25	
Bottomers	175		2 50	
Cutters	20		2 75	
Fitters	25	230	2 25	\$1 33
Fitters' helpers	a12		73	

**BOOTS AND SHOES (WOMEN'S SHOES), OHIO.—
ESTAB. No. 66.**

Time, 10 hours per day; — days the past year.

Apprentices	a5		\$0 58	
Bottomers and finishers	40		2 50	
Cutters	5		2 50	
Fitters		35		\$1 17
Inkers and sorters		a15		50

**BOOTS AND SHOES (WOMEN'S SHOES), OHIO.—
ESTAB. No. 67.**

Time, 10 hours per day; 300 days the past year.

Bottomers and finishers	30		\$2 00	
Fitters		30		\$0 85

**BOOTS AND SHOES (MEN'S AND WOMEN'S SHOES),
OHIO.—ESTAB. No. 68.**

Time, 10 hours per day; — days the past year.

Apprentices	a20		\$1 00	
Bottomers	50		2 17	
Cutters	15		2 33	
Foremen	3		3 00	
Fitters		30		\$1 00
Packers	3		1 50	

**BOOTS AND SHOES (YOUTH'S AND CHILDREN'S SHOES),
PENNSYLVANIA.—ESTAB. No. 69.**

Time, 10 hours per day; 240 days the past year.

Beaters-out	6		\$3 10	
Beaters	33		1 25	
Buffers	6		2 50	

**BOOTS AND SHOES (YOUTH'S AND CHILDREN'S SHOES),
PENNSYLVANIA.—ESTAB. No. 69.—Concluded.**

Time, 10 hours per day; 240 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burnishers	7		\$2 10	
Button-hole makers	3		1 60	
Button sewers		39		\$0 90
Closers	19		1 85	
Closers	6		2 35	
Corders	20		1 66	
Edge setters	14		3 00	
Finishers	15		2 80	
Fitters	30		1 66	
Fitters	29		1 05	
Fitters		a32		50
Heelers	6		2 80	
Laborers	20		1 40	
Laborers	3		1 25	
Lasters	68		1 73	
Packers	6		1 00	
Scourers	2		2 00	
Seam rubbers	6		1 15	
Sewers, McKay machine	7		3 25	
Sewing-machine operators	16		1 80	
Sewing-machine operators	10		1 50	
Sewer, Standard machine	1		2 60	
Stayers		14		90
Stitchers, lining	11		1 85	
Tackers	4		1 10	
Trimmers	7		3 05	
Trimmers	5		1 50	
Turners	35		2 60	
Vampers	14		1 90	

BOOTS AND SHOES (WOMEN'S SHOES), PENNSYLVANIA.—ESTAB. No. 70.

Time, 10 hours per day; 250 days the past year.

Burnishers	5		\$2 23	
Button-hole makers		9		\$0 78
Cutters	28		2 18	
Edge trimmers	8		3 49	
Finishers	21		2 20	
Finishers	10		2 78	
Heelers	2		2 68	
Heelers	5		3 38	
Laborers	15		1 25	
Lasters	42		2 24	
Pasters		79		88
Sewing-machine operators	3	71	2 65	1 32
Sewers, hand	17		2 06	
Shavers	5		2 85	
Sock liners	6		1 64	
Troers	3		1 64	
Turners	22		2 05	
Undesignated	a68		80	

**BOXES (WOODEN BOXES), NEW YORK.—ESTAB.
No. 71.**

Time, 10 hours per day; 300 days the past year.

Box makers	27		\$2 33	
Engineer	1		3 00	
Fireman	1		2 00	
Lumber handlers	6		2 00	
Planers	2		2 17	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is *not* a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BOXES (WOODEN BOXES), NEW YORK.—ESTAB. No. 71.—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Sawyers.....	12		\$3 00	
Teamsters.....	6		2 00	
Tonguers and groov- ers.....	2		2 17	

BOXES (WOODEN BOXES), VIRGINIA.—ESTAB. No. 72.

Time, 10 hours per day; 300 days the past year.

Box makers.....	22		\$3 00	
Engineer.....	1		1 50	
Foreman.....	1		3 50	
Laborers.....	12		1 00	
Sawyers.....	4		2 00	
Sawyers.....	4		1 50	
Sawyers' helpers.....	a4		75	
Undesignated.....	a9		50	

BOXES (PAPER PILL BOXES), VIRGINIA.—ESTAB. No. 73.

Time, 10 hours per day; 290 days the past year.

Box makers.....		147		\$0 67
Box makers.....		140		63
Cutters.....	6		\$2 00	
Cutters' helpers.....	a16		70	
Engineer.....	1		1 50	
Foremen.....	2		2 00	
Laborers.....	a2		50	
Packers.....	2		1 75	
Teamsters.....	1		75	

BRICKS, DELAWARE.—ESTAB. No. 74.

Time, 10 hours per day; 175 days the past year.

Foreman.....	1		\$3 33	
Laborers.....	29		1 25	
Moulders.....	6		2 37	
Machine tenders.....	16		1 27	
Off-bearers.....	6		1 00	
Setters and burners.....	9		1 76	
Undesignated.....	a8		50	
Wheelers.....	6		1 33	

BRICKS (FIRE BRICKS, TILES), MISSOURI.—ESTAB. No. 75.

Time, 10 hours per day; — days the past year.

Engineers.....	2		\$3 25	
Laborers.....	111		1 25	
Pressers.....	2		2 25	
Retort makers.....	4		2 50	
Trap makers.....	3		2 00	
Tile makers.....	3		2 50	

BRICKS, NEW HAMPSHIRE.—ESTAB. No. 76.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burners.....	2		\$4 23	
Foreman.....	1		5 69	
Moulders.....	6		2 42	
Setters.....	6		1 43	
Wheelers and car- riers.....	48		1 27	

BRICKS, NEW JERSEY.—ESTAB. No. 77.

Time, 10 hours per day; 175 days the past year.

Burners.....	2		\$3 25	
Clay grinders.....	2		1 75	
Engineers.....	1		2 00	
Laborers.....	101		1 50	
Moulders.....	14		2 60	
Pressers.....	11		2 00	
Setters.....	3		3 00	
Wheelers and tossers.....	6		1 75	

BRICKS (FIRE BRICKS), NEW JERSEY.—ESTAB. No. 78.

Time, 10 hours per day; 175 days the past year.

Blacksmith.....	1		\$2 12	
Brick burners.....	3		1 50	
Diggers.....	9		1 13	
Engineer.....	1		2 12	
Laborers.....	31		1 00	
Moulders.....	5		1 62	
Pipe pressmen.....	5		1 20	
Pressers.....	2		1 30	
Setters.....	2		1 50	
Wheelwright.....	1		2 13	

BROOMS, NEW YORK.—ESTAB. No. 79.

Time, 10 hours per day; 273 days the past year.

Foremen.....	3		\$3 00	
Foremen, assistant.....	2		1 67	
Laborers.....	15		1 35	
Laborers.....	17		1 25	
Laborers.....	23		1 17	
Packers.....	6		83	
Sackers.....	2		1 37	
Sewers.....	9		1 54	
Sewers.....	2		1 33	
Sizers.....	5		1 42	
Sizers.....	3		1 12	
Trimmer.....	1		1 50	
Winders.....	17		1 75	
Winders.....	19		1 67	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is *not* a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

BROOMS, NEW YORK.—ESTAB. No. 80.

Time, 10 hours per day; 273 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foremen	3		\$3 00	
Foremen	2		1 75	
Laborers	15		1 33	
Laborers	40		1 21	
Packers	6		83	
Sackers	2		1 37	
Sewers	12		1 67	
Sewers	3		1 58	
Sewers	4		1 48	
Sewers	2		1 33	
Sizers	5		1 42	
Sizers	3		1 12	
Sorter	1		1 62	
Trimmer	1		1 50	
Winders	8		1 79	
Winders	22		1 71	
Winders	6		1 60	

BROOMS, NEW YORK.—ESTAB. No. 81.

Time, 10 hours per day; 273 days the past year.

Foreman	1		\$3 00	
Foremen	2		2 67	
Foremen, assistant	2		1 67	
Laborers	6		1 25	
Packers	2		83	
Sewers	6		1 50	
Sizer	1		1 25	
Sizer	1		1 12	
Sorter	1		1 58	
Trimmer and sacker	1		1 42	
Winders	8		1 75	

BROOMS, NEW YORK.—ESTAB. No. 82.

Time, 10 hours per day; 273 days the past year.

Foreman	1		\$3 00	
Foremen	3		1 75	
Laborers	5		1 33	
Laborers	5		1 20	
Packers	2		83	
Sacker	1		1 37	
Sizer	1		1 12	
Sizers	2		1 41	
Sewers	2		1 58	
Sewers	2		1 50	
Sewer	1		1 38	
Trimmer	1		1 50	
Winders	11		1 66	

BROOMS, NEW YORK.—ESTAB. No. 83.

Time, 10 hours per day; 273 days the past year.

Foreman	1		\$3 00	
Foremen	2		1 75	
Laborers	4		1 33	
Laborers	5		1 21	
Packers	2		83	
Sewers	4		1 62	
Sewers	2		1 50	

BROOMS, NEW YORK.—ESTAB. No. 83—Concluded.

Time, 10 hours per day; 273 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Sewer	1		\$1 33	
Sizers	2		1 42	
Sorter	1		1 67	
Trimmer and sacker	1		1 50	
Winders	3		1 75	
Winders	4		1 60	

CARPETINGS (EXTRA SUPER INGRAIN), CONNECTICUT.—ESTAB. No. 84.

Time, 10 hours per day; 300 days the past year.

Dyers	10		\$1 75	
Finishers	10		\$1 25	
Weavers	12		1 75	
Weavers	36		1 50	
Winders	20		65	

CARPETINGS (BRUSSELS), GREAT BRITAIN.—ESTAB. No. 85.

Time, 10 hours per day, 56½ hours per week; — days the past year.

Alterers	a38		\$0 50	
Designers	7		1 41	
Designers' assistants	a4		42	
Dyers	9		87	
Dyers' helpers	a4		38	
Foremen	4		2 08	
Laborers	8		86	
Packers	5		77	
Repair hands	13		1 04	
Sizers	4		1 25	
Sizers' assistants	a3		37	
Stampers		4	\$0 83	
Stampers' assistants		a2	83	
Undesignated	6		54	
Undesignated	5		42	
Weavers	62		1 46	
Winders		17	44	
Winders		a7	37	

CARPETINGS (TAPESTRY), GREAT BRITAIN.—ESTAB. No. 86.

Time, 10 hours per day, 56½ hours per week; — days the past year.

Color hands	a10		\$0 37	
Color hands	a15		83	
Designers	3		1 33	
Designers' assistants	a5		83	
Foremen	2		1 75	
Printers	25		1 17	\$0 71
Setters		21	75	
Setters		a14	38	
Undesignated	18		83	
Weavers	54		1 25	
Winders		12	50	
Winders		a10	83	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CARPETINGS (BRUSSELS, WILTON, AND INGRAIN), MASSACHUSETTS.—ESTAB. NO. 87.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	a51	30	\$0 64	\$0 64
Combers	a36	a14	58	59
Cotton-room hands	a16	19	60	69
Dyers	100		1 00	
Engineers	12		1 20	
Finishers	7	48	92	92
Finishers	7	40	87	87
Laborers	46		1 00	
Rulers	1	11	1 03	1 07
Scourers	19		1 00	
Scrubbers		7		60
Section hands	59		1 20	
Spinners, mule	87		1 19	
Spinners, other	a9	32	60	60
Spoolers		12		92
Warpers	a8		1 26	
Waste pickers	19	5	60	60
Weavers	32	111	2 03	2 03
Weavers	31	111	1 55	1 55
Weavers	31	111	98	98
Winders	19	58	84	84
Wool sorters	19	3	1 08	1 68

CARPETINGS (BRUSSELS AND WILTON), MASSACHUSETTS.—ESTAB. NO. 88.

Time, 10 hours per day; 300 days the past year.

Carders	13	10	\$0 88	\$0 88
Dofers		a12		50
Doubblers		7		80
Dressers	4		2 00	
Dyers	13		1 40	
Engineers and repair hands	3		3 00	
Finishers	5	7	1 50	1 50
Laborers	4		1 33	
Laborers	8		90	
Spinners, other		20		80
Twisters		21		70
Undesignated	16		3 00	
Undesignated	a30		60	
Winder	1	3	1 50	1 50
Winders		28		90
Wool sorters	9		2 00	

CARPETINGS (TAPESTRY), MASSACHUSETTS.—ESTAB. NO. 89.

Time, 10 hours per day; — days the past year.

Beamers	4		\$1 50	
Color hands	a8		58	
Dressers	2		1 25	
Laborers	a3		58	
Pickers	5		1 10	
Printers	8		1 08	
Scourers	9		1 33	
Setters		14		1 40
Spoolers		a10		66
Weavers		36		1 33

a Youth.

CARPETINGS (BRUSSELS AND WILTON), MASSACHUSETTS.—ESTAB. NO. 90.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card cutters	2		\$1 76	
Dyers	12		1 40	
Laborers	5		1 00	
Laborers	a20		75	
Loom fixers	4		2 70	
Machinists	4		2 75	
Winders	20		1 70	
Winders	a30		80	

CARPETINGS (BRUSSELS AND MOQUETTE), NEW YORK.—ESTAB. NO. 91.

Time, 10 hours per day; 100 days the past year.

Adjusters	2		\$2 00	
Analyst	1		1 33	
Bankers	16	b15	85	84
Beamers	9		1 46	
Beamers	48		1 12	
Blacksmiths	7		2 33	
Blacksmiths' helpers	7		1 50	
Bobbin boys	b32		58	
Brushers	a8		75	
Carders	19		1 46	
Card boys	b75		50	
Card cleaners	3		1 25	
Card cleaner	1		1 00	
Card grinders	6		1 50	
Card writers	3		83	
Carpenters	4		2 00	
Carriers	49	b11	1 20	83
Carriers	18		1 42	
Color hands	a9		58	
Color hands	2		1 50	
Color hands	b80		50	
Color hands	2		2 00	
Combers	9	12	2 40	80
Designer	1		8 00	
Designer	1		6 00	
Designer	1		6 00	
Designer	1		4 00	
Designers	7		2 50	
Designer	3		1 67	
Dofers		a30		5
Doubblers	27	20	1 15	1 23
Drawers		30		1 00
Dressers	67		1 50	
Drum strippers	18		1 50	
Dryers	17		1 20	
Dryers	a15		58	
Dyers	10		1 46	
Dye preparers	8		2 17	
Elevator tenders	8		1 35	
Elevator tenders	3		83	
Engineers	6		2 33	
Feeder's breaker	2		1 15	
Feeders	8		1 00	
Fillers		83		1 30
Finishers	3		1 50	
Finishers	5		1 95	
Firemen	6		1 20	
Floormen	218		1 43	
Foremen	120		2 21	
Hacklers	5		1 30	
Harness fixers	3		1 50	
Harness fixers	5		3 21	
Laborers	3		1 25	
Inspectors	17	12	1 37	1 00

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CARPETINGS (BRUSSELS AND MOQUETTE), NEW YORK.—ESTAB. No. 91—Concluded.

Time, 10 hours per day; 100 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Inspectors	4		\$2 42	
Laborers	43		1 15	
Laborers	8		1 00	
Lappers	6		1 20	
Loom fixers	30		2 54	
Machinists	60		2 25	
Machinists' apprentices	66			
Manglers	7		58	
Matchers	3		1 25	
Menders		17	1 87	
Measurers	8		\$1 37	
Oilers	7		2 00	
Oil extractors	154		1 28	
Overseers	5		88	
Pattern starters	10		4 00	
Pickers	4		2 60	
Picker feeders	8		1 50	
Printers	175		1 00	
Rulers		29	1 08	
Scourers	36		1 50	
Scourers	5		1 40	
Scourers	49		1 38	
Scourers	22		1 10	
Scrapers		154	1 00	
Scrubbers	7	21	1 00	89
Section hands	21		1 03	
Seamster	1		1 90	
Separators		8		85
Setters	90		2 00	
Setters		134	1 12	
Shearers	6		1 75	
Sizers	12		1 50	
Sizers	4		1 25	
Spare hands	11	12	1 05	60
Speckers		35	1 52	
Spinners, mulo	100		1 20	
Spinners, other	31	200	1 00	
Spoolers		48	1 12	
Spoolers		154	87	
Spoolers	254		78	
Suction-fan tenders	7		1 25	
Sweepers	225		68	
Teamsters	12		1 44	
Tinsmiths	4		2 17	
Twisters	6	20	1 50	1 00
Undesignated	2871		58	
Warpers	7		1 50	
Warpers	12		1 43	
Waste gatherers	23		67	
Waste gatherers	216		62	
Watchmen	12		1 50	
Weavers		358	1 32	
Weavers	890		1 50	
Weighers	4		2 50	
Weighers	81		1 67	
Weighers			1 25	
Winders		65	1 12	
Winders		12	92	
Wipers	12		1 67	
Wire and reed fixers	4		1 50	
Wool boxers	8		1 25	
Wool sorters	81		1 20	
Yarn bleachers	8		1 25	
Yarn numbers	216		75	
Yarn steamers	2		1 42	

CARPETINGS (BRUSSELS AND VELVET), NEW YORK.—ESTAB. No. 92.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bankers		25		\$0 50
Beamers	5	10	\$2 00	1 00
Belt lacer	1		2 03	
Blacksmiths	4		2 17	
Bobbin boys	230		68	
Breakers	4		1 46	
Card boys	228		75	
Carders	12		1 46	
Card cleaners	12		1 25	
Card writers	3		90	
Carpenters	10		2 25	
Carriers	13		98	
Color hands	245		84	
Color hands	10		1 40	
Color hand	1		2 00	
Color hands	3		2 00	
Combbers	2	21	2 42	1 00
Cooper	1		1 50	
Coupler	1		2 25	
Designer	1		6 00	
Designer	1		5 00	
Designer	1		4 17	
Designers	9		3 00	
Designers	2		1 25	
Doffers		290		54
Double	1	38	1 42	1 08
Double	7		1 03	
Drawers		97		1 02
Dressers	5		1 58	
Dressers	17		1 49	
Drum strippers	7		1 50	
Dryers	8		1 17	
Dryers	20		1 20	
Dye preparer	1		2 42	
Dyers	15		1 25	
Engineer	1		5 83	
Engineer	1		2 50	
Engineer	1		1 70	
Feeders	8		1 40	
Finishers	55		1 50	
Finishers	2		1 98	
Firemen	9		1 54	
Foremen	2		4 00	
Foremen	12		2 50	
Foreman	1		2 33	
Foreman	1		2 00	
Harness fixers	3		2 29	
Harness fixers	4		1 50	
Harness fixers	4		1 00	
Inspector	1		1 37	
Inspectors	8	2	1 50	1 00
Laborers	20		1 51	
Laborers	43		1 24	
Lappers	5		1 46	
Loom fixers	11		2 17	
Loom fixers	5		1 75	
Machinists	14		1 88	
Matchers	4		2 00	
Measurers	3		2 00	
Menders		61		1 12
Oilers and carriers	17		1 51	
Oil extractors	45		1 17	
Overseers	9		6 00	
Overseer	1		3 00	
Painters	8		2 00	
Pattern makers	2		2 33	
Pattern starters	4		2 29	

* Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CARPETINGS (BRUSSELS AND VELVET), NEW YORK.—ESTAB. No. 92.—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Picker	10		\$1 89	
Piecers	4		98	
Pipe setters	2		2 00	
Preparer	1		1 92	
Printers	45		1 07	
Reelers	7	13	1 40	\$1 02
Reelers	a6		87	
Repair hand	1		3 00	
Rollers	4		1 13	
Scourers	13		1 42	
Scourers	18		1 27	
Scourers	16		1 19	
Scrapers	45		1 50	
Scrapers	45		1 17	
Scrubbers and spool- ers		19		88
Section hands	28		1 98	
Setters		100	1 67	
Setters		4	1 25	
Setters	1		1 50	
Shaders	2		2 30	
Shearers	9		1 70	
Shearers	4		1 48	
Sizers	3		1 50	
Spare hands		8		77
Speckers		45	1 33	
Spinners	75		1 25	
Spinners	88		1 17	
Spinners	105		1 08	
Spinners		a11		45
Spinners		22		77
Spoolers	62	10	1 25	68
Suction-fan tenders	2		1 37	
Sweepers		21		77
Teamsters	4		1 52	
Timekeepers	a4		82	
Tinmiths	2		2 25	
Twister	1		1 42	
Twisters		135		1 00
Undesignated	3		2 00	
Undesignated	a108		67	
Warpers	3		1 50	
Warper	1		1 12	
Watchmen	4		1 51	
Water-main tenders	3		1 48	
Weavers		313		1 25
Weighter	1		2 67	
Weighters	17		1 37	
Wheelwright	1		4 00	
Wheelwright	1		2 00	
Winders	16		1 67	
Winders	9	20	1 50	69
Winders		4		95
Winder	1		1 40	
Winders		17		1 03
Winders		31		1 07
Winders		27		1 02
Winders		85		1 12
Winders	10		1 00	
Wire makers	4		1 75	
Wire makers	9		1 29	
Wire and reed fixers	4		1 46	
Wire pilers	4		1 00	
Wood turner	1		2 20	
Wool sorters	30		1 21	
Yarn bleachers	4		1 08	
Yarn numberers	a12		75	
Yarn streamers	3		1 50	

CARPETINGS (BRUSSELS, VELVET, AND INGRAIN), NEW YORK.—ESTAB. No. 93.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bankers	a14		\$0 70	
Bankers		a3		\$0 55
Beamers	3		2 35	
Beamers	2		2 00	
Blacksmith	1		3 00	
Blacksmith	1		2 15	
Bobbin boys	a6		65	
Bobbin sorter		1		1 15
Carder	1		2 60	
Carder	1		2 35	
Carder	1		2 15	
Card cleaners	6		1 80	
Card cutter		2		1 40
Card cutter		1		1 25
Card cutter		1		1 00
Card lacers		2		80
Card setter	1		2 50	
Card tenders	2		1 30	
Card writers	2		1 75	
Carpenters	5		2 44	
Carriers	a9		70	
Carriers	a3		60	
Chainer		1		1 05
Chainer		1		98
Cloth carriers	a5		50	
Color hands	a3		55	
Color hands	10		1 75	
Color hand	1		2 30	
Color hands	34		1 10	
Comber	1		3 20	
Comber	1		2 10	
Combers	7		1 30	
Combers		50		1 00
Cooper	1		1 75	
Designer	1		5 83	
Designers	3		4 80	
Designer	1		3 00	
Designers	3		2 50	
Designer	1		1 67	
Designer	a1		1 00	
Designer		a30		83
Doffer		16		55
Doublers				1 00
Drawers	2		2 37	
Drawers	3		1 80	
Drawers		77		1 05
Dressers	12		1 80	
Drum strippers	5		1 70	
Dyers	38		1 75	
Engineer	1		3 50	
Engineers	2		2 20	
Feeders	a5		70	
Fillers	34		1 50	
Finisher	1		1 85	
Finisher	1		2 15	
Firemen	8		2 00	
Firemen	3		1 77	
Foreman	1		3 50	
Foremen	5		3 28	
Foremen	6		2 55	
Foremen	2		2 10	
Foreman	1		2 00	
Frame stringers		10		80
Giller	1		1 52	
Hackler	1		2 50	
Harness fixers	2		2 75	
Harness fixer	1		1 67	
Harness fixer	1		1 20	
Inspectors	1	11	2 00	1 30

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CARPETINGS (BRUSSELS, VELVET, AND INGRAIN),
NEW YORK.—ESTAB. No. 93—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Inspector		1		\$1 10
Laborers	27		\$1 22	
Loom fixers	17		2 63	
Machinists	9		2 30	
Matcher	1		2 50	
Numbers	a3		50	
Oilers	11		1 08	
Overseer	1		7 00	
Overseer	1		5 00	
Overseers	2		4 00	
Painter	1		2 45	
Painter	1		2 10	
Pattern maker	1		2 90	
Pattern starter	1		2 75	
Pattern starter	1		2 62	
Pickers	26		1 48	
Piler, wire	1		1 43	
Pipe setter	1		2 25	
Printers	34		2 30	
Reeler	1		2 60	
Reelers		31		1 50
Rollers	2		1 50	
Scourers	13		1 75	
Scrapers	34		1 75	
Second hand	1		4 00	
Second hands	2		3 00	
Second hands	2		2 75	
Second hand	1		2 25	
Second hand	1		2 00	
Section hands	36		2 60	
Section hands	4		1 88	
Separators		14		89
Setters		80		1 60
Shader	1		3 00	
Shearers	4		1 99	
Sizers	2		1 80	
Speckers		22		1 68
Spinner, mule	1		2 50	
Spinners, mule	2		2 25	
Spinner, mule	1		1 95	
Spinners, mule	2		1 70	
Spinners, mule	17		1 33	
Spinner, mule	1		1 20	
Spinners, other		78		1 38
Spinners, other		2		85
Spinners, other		a11		68
Spoolers		82		80
Sweepers		12		80
Timemith	1		2 25	
Twisters		4		90
Twisters		70		1 50
Twister	1		1 00	
Undesignated	37		1 70	
Undesignated	1		1 50	
Undesignated	1		1 20	
Undesignated	42		1 00	
Undesignated	a15		65	
Undesignated	a27		71	
Undesignated	a45		58	
Warpers	2		2 50	
Warper	1		2 00	
Warper	1		1 80	
Warper	1		1 50	
Waste sorter		a1		55
Weavers	3		2 50	
Weavers	2		2 00	
Weavers	31	243	1 70	1 63
Weighers	3		2 31	
Weighers and num-				
bers	6		93	
Winders		7		1 50

CARPETINGS (BRUSSELS, VELVET, AND INGRAIN),
NEW YORK.—ESTAB. No. 93—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Winders		10		\$1 40
Winders		a28		0 75
Winders		a24		0 55
Winders		26		1 80
Winders		9		1 60
Wire hand	1		\$1 90	
Wire and reed hand	1		1 65	
Wire and reed hand	1		1 50	
Wool blender	1		2 10	
Wool dusters	2		1 27	
Wool sorters	9		1 80	
Yarn layers	4		1 60	
Yarn loopers	2		1 75	
Yarn numberers	3		80	

CARPETINGS (BRUSSELS, TAPESTRY, AND VELVET),
PENNSYLVANIA.—ESTAB. No. 94.

Time, 10 hours per day; 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	a80		\$0 75	
Color hands	30		1 00	
Combers		5		\$1 18
Doffers		30		50
Doublers	20		1 33	
Drawers		30		90
Dyers	18		1 50	
Dye and wool-house				
hands	200		1 25	
Laborers	400		1 25	
Loom fixers	21		2 25	
Machinists	16		2 25	
Oil extractors	30		1 00	
Printers	30		1 50	
Setters	120		1 80	
Scrapers	30		1 00	
Spinners, other than				
mule		60		83
Spoolers		80		83
Twisters		30		90
Weavers	36		2 00	
Weavers	110		1 50	
Weavers	180		1 80	
Weavers	186		1 66	

CARPETINGS (INGRAIN), PENNSYLVANIA.—ESTAB.
No. 95.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineer	1		\$1 66	
Spoolers	4		85	
Warpers	2		1 35	
Winders		28		\$0 75
Weavers	103		1 50	

CARRIAGES AND WAGONS, CONNECTICUT.—ESTAB.
No. 96.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$3 00	
Blacksmiths	2		2 75	
Blacksmiths	3		2 00	
Blacksmiths' helpers	7		2 00	
Body makers	2		3 25	
Body makers	2		2 50	
Body makers	6		2 00	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CARRIAGES AND WAGONS, CONNECTICUT.—ESTAB.
No. 96.—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foreman	1		\$4 17	
Foreman	1		3 25	
Painters	2		2 50	
Painters	2		2 00	
Painters	4		1 67	
Porter	1		2 00	
Trimmer	1		3 00	
Trimmers	3		2 50	
Trimmer	1		2 25	

CARRIAGES AND WAGONS, CONNECTICUT.—ESTAB.
No. 97.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	6		\$3 50	
Blacksmiths	10		2 75	
Blacksmiths	9		2 50	
Blacksmiths	5		2 25	
Blacksmiths' helpers	6		2 00	
Blacksmiths' helpers	10		1 75	
Blacksmiths' helpers	9		1 50	
Blacksmiths' helpers	5		1 25	
Body makers	6		3 25	
Body makers	11		2 50	
Body makers	18		2 00	
Laborers	10		1 25	
Painters	5		3 25	
Painters	5		2 50	
Painters	10		2 00	
Painters	30		1 67	
Trimmers	9		3 00	
Trimmers	27		2 50	
Trimmers	9		2 25	
Wheelwrights	15		2 25	

CARRIAGES AND WAGONS, CONNECTICUT.—ESTAB.
No. 98.

Time, 10 hours per day; 308 days the past year.

Blacksmiths	10		\$3 25	
Blacksmiths	4		2 75	
Blacksmiths' helpers	14		2 00	
Body makers	30		2 50	
Finishers	5		2 50	
Laborers	2		1 50	
Machine men	4		2 50	
Painters	8		3 50	
Painters	22		2 00	
Sawyers	2		2 25	
Trimmers	5		3 00	
Trimmers	5		2 50	
Trimmers	5		2 00	
Wheelwrights	8		2 50	

CARRIAGES AND WAGONS, CONNECTICUT.—ESTAB.
No. 99.

Time, 10 hours per day; 308 days the past year.

Blacksmiths	3		\$2 50	
Blacksmiths	3		2 00	
Blacksmiths' helpers	7		1 50	
Body makers	2		3 00	
Body makers	3		2 50	

CARRIAGES AND WAGONS, CONNECTICUT.—ESTAB.
No. 99.—Concluded.

Time, 10 hours per day; 308 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foreman	1		\$4 00	
Painters	8		2 00	
Trimmers	8		2 00	

CARRIAGES AND WAGONS, ILLINOIS.—ESTAB. No.
100.

Time, 10 hours per day; 300 days the past year.

Apprentices	a10		\$0 83	
Apprentices	a10		67	
Blacksmiths	5		2 17	
Blacksmiths' helpers	5		1 00	
Finishers	6		1 60	
Foreman	1		3 00	
Foremen	2		2 50	
Painters	6		2 00	
Trimmers	6		2 17	
Wood workers	10		1 67	

CARRIAGES AND WAGONS, ILLINOIS.—ESTAB. No.
101.

Time, 10 hours per day; 310 days the past year.

Blacksmiths	7		\$3 00	
Blacksmiths	15		2 50	
Blacksmiths	5		2 25	
Blacksmiths' helpers	5		2 00	
Blacksmiths' helpers	8		1 60	
Blacksmiths' helpers	5		1 60	
Painter	1		3 00	
Painters	9		2 35	
Painters	16		2 00	
Painters	4		1 50	
Painters	10		1 00	
Trimmers	12		8 00	
Trimmers	3		2 25	
Trimmers	4		1 75	
Trimmers	10		1 15	
Wood workers	15		8 00	
Wood workers	5		2 50	
Wood workers	10		2 15	
Wood workers	6		1 62	
Wood workers	2		1 25	
Wood workers	6		1 00	

CARRIAGES AND WAGONS, ILLINOIS.—ESTAB. No.
102.

Time, 10 hours per day; 300 days the past year.

Apprentice	a1		\$0 75	
Apprentice	a1		1 00	
Blacksmith	1		2 25	
Blacksmiths	2		2 00	
Blacksmiths' helpers	8		1 50	
Fitters	2		1 75	
Foremen	2		3 00	
Laborers	7		1 50	
Painters	3		2 00	
Painters	2		1 25	
Shippers	3		1 25	
Trimmer	1		1 75	
Trimmers	4		1 50	
Wood workers	2		2 25	
Wood workers	3		1 50	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CARRIAGES AND WAGONS, ILLINOIS.—ESTAB. No. 103.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentice.....	61		\$0 75	
Blacksmiths.....	11		2 25	
Blacksmiths.....	6		2 00	
Blacksmiths' helpers.....	5		1 75	
Blacksmiths' helpers.....	6		1 00	
Foremen.....	3		5 00	
Foremen.....	2		4 00	
Foreman.....	1		3 50	
Harness makers.....	2		2 75	
Harness makers.....	8		1 87	
Laborers.....	3		1 75	
Laborers.....	2		1 00	
Painters.....	3		2 87	
Painters.....	26		2 00	
Painters.....	10		1 62	
Painters.....	2		1 25	
Trimmers.....	2		2 87	
Trimmers.....	4		2 50	
Trimmers.....	4		2 12	
Trimmers.....	2		1 50	
Wood workers.....	3		3 25	
Wood workers.....	4		2 50	
Wood workers.....	7		1 87	

CARRIAGES AND WAGONS, NEW JERSEY.—ESTAB. No. 104.

Time, 10 hours per day; 300 days the past year.

Blacksmiths.....	16		\$1 92	
Body makers.....	10		2 50	
Painters.....	18		1 75	
Trimmers.....	6		2 25	
Wheelwrights.....	2		2 50	

CARRIAGES AND WAGONS, OHIO.—ESTAB. No. 105.

Time, 10 hours per day; — days the past year.

Blacksmiths.....	7		\$2 75	
Blacksmiths' helpers.....	14		1 35	
Foremen.....	4		3 00	
Gear finishers.....	5		1 80	
Laborers.....	8		1 35	
Painters.....	14		1 35	
Trimmers.....	8		2 50	
Varnishers.....	13		2 00	
Wood workers.....	9		2 60	
Wood-workers' help- ers.....	9		1 35	

CARRIAGES AND WAGONS, OHIO.—ESTAB. No. 106.

Time, 10 hours per day; 300 days the past year.

Blacksmiths.....	63		\$2 10	
Body makers.....	26		2 25	
Body makers.....	23		1 50	
Dash-frame makers.....	19		1 40	
Dash polishers.....	17		\$1 15	

CARRIAGES AND WAGONS, OHIO.—ESTAB. No. 106—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Finishers, varnish.....	13		\$2 75	
Finishers, iron.....	22		1 80	
Finishers' helpers, varnish.....	12		1 75	
Foremen.....	5		3 33	
Foremen.....	17		3 00	
Foremen.....	4		2 00	
Gear workers.....	42		1 75	
Gear and wheel work- ers, bench.....	32		2 00	
Gear and wheel work- ers, machine.....	18		1 40	
Hangers.....	7		2 25	
Hangers helpers.....	37		1 85	
Laborers.....	15		1 87	
Painters.....	83		1 40	
Sewing-machine op- erators.....		28		\$1 15
Teamsters.....	8		1 50	
Varnishers.....	21		2 00	
Varnishers' helpers.....	15		1 25	
Watchman.....	1		3 50	
Watchmen.....	4		2 50	

CARRIAGES AND WAGONS, PENNSYLVANIA.—ESTAB. No. 107.

Time, 10 hours per day; 250 days the past year.

Apprentices.....	4		\$0 83	
Blacksmiths.....	4		2 08	
Blacksmiths' helpers.....	6		95	
Painters.....	3		2 33	
Trimmer.....	1		2 00	
Wood workers.....	4		1 91	

CLOCKS AND WATCHES (MOVEMENTS), ILLINOIS.—ESTAB. No. 108.

Time, 10 hours per day; — days the past year.

Balance makers.....	29	15	\$1 73	\$1 73
Dial makers.....	48	20	2 17	2 17
Engineers.....	3		2 50	
Engravers.....	14	2	2 23	2 23
Escapement makers.....	46	22	1 89	1 89
Finishers.....	108	22	2 40	2 40
Finishers, nickel.....	5		2 29	
Forge-room hands.....	12		1 45	
Gilders.....	14	19	1 41	1 41
Hand makers.....	1	3	3 00	1 70
Jewellers.....	59	18	1 54	1 50
Laborers.....	20		1 50	
Machinists.....	75		2 86	
Main-spring makers.....	20		1 98	
Motion hands.....	69	8	1 67	1 67
Pattern makers.....	18		2 20	
Platers.....	33	29	1 90	1 90
Staff turners.....	7		3 48	
Steel and screw hands.....	53	67	1 56	1 56
Stock-room hands.....	13	2	1 74	1 74
Train hands.....	66	128	1 47	1 47

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CLOCKS AND WATCHES (MOVEMENTS), OHIO.—ESTAB. No. 109.

Time, 10 hours per day; 275 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$2 75	
Finishers	8		3 00	
Foremen	4		6 00	
Foremen, assistant	4		3 50	
Machinists	12		2 75	
Machine operators	40	40	1 50	\$1 00

CLOTHING (HATS AND CAPS), NEW JERSEY.—ESTAB. No. 110.

Time, 10 hours per day; 300 days the past year.

Blockers	4		\$4 17	
Blowers	3		1 00	
Colorers	4		1 83	
Engineers	1		3 00	
Foreman	1		3 33	
Foreman	1		2 00	
Foremen	2		3 75	
Former	1		3 00	
Formers	9	a5	2 00	\$0 83
Finishers	2		3 67	
Finishers	70		2 00	
Laborers	7		1 50	
Makers-up	70		2 33	
Overseer		1		1 67
Packers	7		2 50	
Pouncers	12		2 00	
Stiffener	1		3 33	
Trimmers		60		1 00

CLOTHING (HATS AND CAPS), NEW JERSEY.—ESTAB. No. 111.

Time, 10 hours per day; 300 days the past year.

Blockers	4		\$2 50	
Colorers	4		1 66	
Engineers	1		3 50	
Finishers	40		2 00	
Finishers	4		1 80	
Flangers	2		3 33	
Formers	15	20	2 50	\$1 33
Formers	a8	7	83	1 00
Leatherers		8		1 00
Packer	1		2 50	
Polishers	6		2 50	
Porter	1		2 00	
Sizers	50		2 00	
Sizers	2		1 80	
Stiffener	1		3 00	
Stiffeners	a2		91	
Watchman	1		2 00	

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 112.

Time, 11 hours per day; 300 days the past year.

Brusher	1		\$1 15	
Button sewers		a5		\$0 59
Button-hole makers	7	4	1 70	1 70
Card boys	a4		62	
Card cleaner		1		1 00

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 112—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cutter	1		\$1 98	
Finishers		16		\$0 91
Finishers		2		87
Hemmers		2		85
Inspectors		2		87
Knitters		4		87
Knitter		1		1 25
Lappers	2		1 00	
Loopers		10		79
Menders		7		74
Overseer	1		2 50	
Overseer	1		1 75	
Overseer	1		1 50	
Pressers and packers	9		1 63	
Second hand	1		1 25	
Sewing-machine operators		2		1 15
Sewing-machine operators		8		96
Sewing-machine operators		9		70
Spinners	a6			87
Spoolers	a1			87
Undesignated	3	a3	1 53	58
Winders		a7		62
Winder	a1			62

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 113.

Time, 11 hours per day; 302 days the past year.

Button sewers		a2		\$0 59
Button-hole maker		1		1 70
Card boys	a2		\$0 62	
Card cleaner	1		1 33	
Cutter	1		1 98	
Engineer	1		1 25	
Finishers		12		82
Finishers		2		87
Hemmers		3		85
Inspector		1		86
Knitters		6		1 25
Laborer	1		83	
Lappers	2		1 33	
Lapper	a1		87	
Loopers		5		79
Mender		1		74
Overseers	3		2 00	
Pressers and packers	3		1 63	
Second hand	1		1 50	
Sewing-machine operators		5		96
Sewing-machine operator		1		85
Sewing-machine operators		7		79
Spinners	6		87	
Spooler		1		87
Trimmer		1		1 67
Trimmer		a1		89
Undesignated	1		1 53	
Undesignated	a6		71	
Wash-room hands	2		1 17	
Winders		a4		62

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 114.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Brusher	1		\$1 15	
Button sewers		a5		\$0 59
Button-hole makers		1		2 97
Card boys	a4		75	
Card cleaner	1		1 25	
Cutter	1		2 30	
Engineer	1		1 50	
Finishers		15		1 24
Finishers		2		1 00
Hemmers		3		85
Inspector		1		1 00
Knitters	1	4	1 75	1 00
Lappers	2		1 12	
Loopers		16		98
Menders		7		1 15
Overseers	3		3 00	
Pressers and packers	8		1 92	
Second hands	3		1 08	
Sewing-machine operators		7		1 17
Sewing-machine operators		9		1 08
Sewing-machine operator		1		85
Spinners, mule	6		1 00	
Spooler	1		1 25	
Trimmers		a2		60
Trimmers		2		1 70
Undesignated		a2		75
Undesignated		2		1 67
Wash-room hands	3		1 50	
Watchman	1		1 50	
Winders		7		87

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 115.

Time, 11 hours per day; 302 days the past year.

Brushers	4		\$1 15	
Button sewers		a9		\$0 59
Button-hole makers		2		1 70
Card boys	a6		62	
Cutters	4		1 98	
Finishers		30		92
Inspectors		3		67
Knitters		12		1 25
Lappers	6		1 00	
Lappers	8		87	
Loopers		16		79
Menders		25		95
Menders		8		85
Pressers and packers	4		1 62	
Sewing-machine operators		10		79
Spinners, mule	8		1 21	
Trimmers		8		83
Wash-room hands	10		1 53	
Winders		18		75

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 116.

Time, 11 hours per day; 302 days the past year.

Brusher	1		\$1 15	
Button sewers		a4		\$0 66
Button-hole makers		1		1 70

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 116—Concluded.

Time, 11 hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card boys	a3		\$0 62	
Cutter	1		1 98	
Finishers		14		\$0 92
Foremen	2		2 04	
Hemmers		2		85
Inspector		1		86
Knitters		3		87
Knitter		1		1-21
Lappers	2		1 00	
Loopers and seamers		14		79
Menders		11		95
Overseers	2		2 50	
Pressers and packers	2		1 62	
Spinners	a5		88	
Spooler	1		1 00	
Trimmers		a3		60
Undesignated		10		83
Undesignated	a9	a5	54	56
Undesignated		a8		37
Wash-room hands	7		1 53	
Winders		a5		62

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 117.

Time, 11 hours per day; 300 days the past year.

Brusher	1		\$1 15	
Button sewers		a4		\$0 59
Button-hole maker		1		1 67
Card boys	a5		62	
Cutter	1		1 98	
Finishers		17		92
Hemmers		2		85
Inspector		1		83
Knitters		5		1 25
Lappers	5		1 00	
Loopers		9		75
Menders	4		14	95
Overseers		4		2 50
Pressers and packers	3		1 67	
Sewing-machine operator		1		1 15
Sewing machine operators		8		75
Spinners	a6		87	
Trimmers		a3		58
Undesignated	9	a9	1 53	56
Winders		7		73

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 118.

Time, 11 hours per day; 302 days the past year.

Brusher	1		\$1 15	
Button sewers		a4		\$0 59
Button-hole maker		1		1 70
Card boys	a3		62	
Card cleaner	1		1 25	
Cutter	1		1 98	
Engineer	1		1 50	
Finishers		14		92
Finisher		1		87
Foreman	1		1 50	
Hemmers		2		85

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 118.—Concluded.

Time, 11 hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Knitters		3		\$0 87
Knitter		1		1 25
Loopers		8		79
Menders		5		74
Overseer	1		\$3 00	
Overseer	1		1 75	
Pleasers and packers	7		1 62	
Second hand	1		1 75	
Sewing-machine operator		1		96
Sewing-machine operators		8		70
Sewing-machine operators		4		1 15
Spinners	a5		87	
Spooler		1		87
Trimmers		2		1 87
Undesignated	1	a4	1 53	56
Wash-room hands	3		1 17	
Watchman	1		1 25	
Winders		a5		67

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 119.

Time, 11 hours per day; 302 days the past year.

Brusher	1		\$1 00	
Button sewers		a5		\$0 59
Button-hole maker		1		1 70
Card boys	a5		62	
Card cleaner	1		1 25	
Cutter	1		1 98	
Engineer	1		1 50	
Finishers		14		92
Finisher		1		87
Hemmer		1		85
Inspector		2		66
Knitters		2		87
Knitter		7		1 25
Loopers		7		79
Menders		4		74
Overseer		1	3 00	
Overseers	2		1 75	
Overseer	1		1 50	
Packers and pressers	6		1 63	
Sewing-machine operator		1		1 15
Sewing-machine operators		6		70
Sewing-machine operators		4		96
Spinners	a4		87	
Spooler		1		87
Trimmer		a1		80
Trimmer		1		1 70
Undesignated	1	a2	1 53	56
Wash-room hands	2		1 17	
Watchman	1		1 25	
Winders		a4		67

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 120.

Time, 11 hours per day; 300 days the past year.

Button sewers		a5		\$0 59
Button-hole maker		1		1 70
Card boys	a4		\$0 63	

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 120.—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cutters	2		\$1 96	
Finishers		14		\$0 82
Hemmers		4		85
Inspector		1		67
Knitter		1		1 25
Knitters		1		82
Lappers	a3	3	56	
Loopers and seamers		14		79
Overseers	2		2 50	
Packers	4		1 58	
Packers	2		1 33	
Sewing-machine operators		11		96
Spinners	a5		87	
Trimmers		4		83
Undesignated	10	a8	1 53	89
Undesignated		a3		54
Wash-room hands	10		1 53	
Winders		6		73

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 121.

Time, 11 hours per day; 302 days the past year.

Button sewers		a2		\$0 66
Button-hole maker		1		1 70
Card boys	a2		\$0 63	
Cutter	1		1 98	
Engineer	1		1 50	
Finishers		11		82
Finisher		1		1 25
Hemmer		1		85
Inspector		1		66
Knitters		2		87
Knitter		1		1 25
Loopers		6		79
Menders		4		74
Overseer	1		3 00	
Overseer	1		1 75	
Overseer	1		1 50	
Sewing-machine operators		5		70
Sewing-machine operators		3		96
Spinners	a4		87	
Spooler	a1		87	
Trimmer		1		1 17
Undesignated		a2		54
Wash-room hands	3		1 17	
Watchman	1		1 25	
Winders		a4		67

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 122.

Time, 11 hours per day; 260 days the past year.

Button sewers		a3		\$0 56
Button-hole makers		3		1 54
Card boys	a7		51	
Card cleaner	a1		77	
Cutters		2		1 66
Dryer	1		65	
Dyer		1		77
Engineers	2		1 54	
Finishers	14		86	
Finisher	a1		71	
Fireman	1		1 23	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries pages 143 to 226.

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 122.—Concluded.

Time, 11 hours per day; 269 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Felder		1	\$0 77	
Forewoman		1	1 64	
Hemmers		3	65	
Inspectors		2	48	
Knitters		6	62	
Knitters		a7	50	
Knitters		3	86	
Laborer	1		\$0 92	
Menders		3	73	
Olser	1		1 00	
Overseer	1		3 85	
Overseer	1		3 07	
Overseer	1		2 10	
Overseer	1		1 54	
Packer	1		77	
Picker	1		1 06	
Presser	1		1 15	
Ribber		1	1 15	
Ribbers		3	1 04	
Second hand	1		1 19	
Second hand		1		96
Second hand	1		77	
Sewing-machine operators		8		83
Spinners, mule	4		1 23	
Spinner, other	a1		71	
Sweepers		2		53
Trimmer		1		92
Turner		1		83
Undesignated	2	5	53	53
Wash-room hands	1		1 19	
Wash-room hands	2		75	
Watchman	1		1 46	

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 123.

Time, 11 hours per day; 300 days the past year.

Button sewers		a5		\$0 60
Button-hole makers		2		1 70
Card boys	a6		\$0 62	
Card cleaners	2		1 25	
Cutters	2		1 98	
Engineer	1		1 50	
Finishers		28		91
Finishers		3		87
Hemmers		4		85
Inspector		1		66
Knitters		2		1 25
Knitters		4		87
Loopers		14		79
Menders		8		74
Overseer	1		1 75	
Overseer	1		1 50	
Pressers and packers	12		1 63	
Sewing-machine operators		2		1 15
Sewing-machine operators		8		96
Sewing-machine operators		12		70
Spinner, mule	1		1 75	
Spinners, other	a8		87	
Spoolers		2		87
Trimmers		2		1 25
Trimmers		a2		60
Undesignated	2		1 53	
Wash-room hands	2		1 17	
Watchman	1		1 25	
Winders		a8		67

a Youth.

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 124.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	14		\$1 76	
Card boys	b7		48	
Cutters	3		1 83	
Dry-room hands	2		1 00	
Finishers		18		\$0 96
Hemmers		10		80
Knitters		7		1 28
Loopers		b20		35
Overseers	3		3 50	
Overseers		3		2 00
Pressers		3		96
Sewing-machine operators		23		80
Sewing-machine operators		2		1 08
Spinners, mule	7		1 15	
Spoolers	a6		64	
Undesignated	12		1 44	
Winders		30		80

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 125.

Time, 11 hours per day; 300 days the past year.

Carder	1		\$1 00	
Carders	a5		67	
Finishers	25		1 25	
Finishers		a5		\$0 50
Foremen	2		3 50	
Foremen	2		2 00	
Knitter	a1		83	
Knitter	a1		67	
Laborers	2		1 00	
Lapper	1		1 00	
Machinist	1		1 50	
Packers	a2		83	
Packer	a1		50	
Picker	1		1 00	
Second hands	2		1 25	
Spinners, mule	5		1 75	
Teamster	1		1 50	
Winders	a3		67	

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 126.

Time, 11 hours per day; 300 days the past year.

Button sewers		5		\$0 83
Button-hole maker		1		1 67
Card boys	a4		\$0 62	
Cutter	1		1 98	
Finishers		16		92
Hemmers		2		85
Inspector		1		67
Knitters		5		1 25
Laborers	3		1 00	
Loopers		18		79
Overseers	2		2 50	
Packers	3		1 62	
Packers	2		1 33	
Sewing-machine operator		1		1 15
Sewing-machine operators		13		95
Spinners	a6		87	
Trimmers		3		79

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

CLOTHING (HOSIERY), NEW YORK.—ESTAB. No. 126.—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Undesignated	.....	8	.....	\$0 83
Undesignated	.....	8	.....	62
Wash-room hands	8	.....	\$1 53	.....
Winders	.....	7	.....	81

CLOTHING (KNIT GOODS, JERSEYS), PENNSYLVANIA.—ESTAB. No. 127.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Button-hole makers	.....	15	.....	\$1 17
Cutters	.....	2	.....	1 00
Folders	.....	a2	.....	80
Knitters	.....	a36	.....	50
Machinist	1	.....	\$2 08	.....
Pressers	.....	2	.....	1 85
Sewing-machine operators	.....	a41	.....	41
Weavers	2	.....	1 50	.....
Winders	.....	6	.....	75

CLOTHING (HATS, CAPS), PENNSYLVANIA.—ESTAB. No. 128.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Finishers	14	.....	\$1 89	.....
Laborers	6	.....	1 25	.....
Sizers	14	.....	1 87	.....
Trimmers	.....	18	.....	\$0 97

CLOTHING (HATS, CAPS), PENNSYLVANIA.—ESTAB. No. 129.

Time, 10 hours per day; 306 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blockers	37	.....	\$2 75	.....
Brushers	4	.....	1 50	.....
Carrotters	10	.....	1 53	.....
Colorers	11	.....	1 78	.....
Curiers	8	.....	2 70	.....
Curiers' helper	a1	.....	70	.....
Cutters	10	15	1 05	\$0 84
Cutters	5	.....	1 00	.....
Engineers	3	.....	2 18	.....
Finishers	122	.....	1 03	.....
Finishers	a50	.....	58	.....
Formers	19	.....	1 53	.....
Formers	a17	.....	54	.....
Laborers	18	.....	1 33	.....
Packers	15	.....	1 20	.....
Pluckers	30	.....	1 06	.....
Pouncers	12	.....	1 03	.....
Printers	3	.....	1 25	.....
Repairers	20	.....	2 50	.....
Shavers	6	.....	2 14	.....
Sizers	155	.....	1 85	.....
Trimmers	.....	107	.....	83
Undesignated	5	15	1 80	83
Wash-room hands	9	.....	1 00	.....

CLOTHING (MEN'S UNDERCLOTHING), VIRGINIA.—ESTAB. No. 130.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bale opener	1	.....	\$1 30	.....
Back boys	a2	.....	50	.....
Bleachers	7	.....	1 50	.....
Card boys	a9	.....	60	.....
Carders	3	.....	2 00	.....
Engineer	1	.....	2 00	.....
Finishers	4	27	2 50	\$0 75
Finishers	.....	a26	.....	50
Fireman	1	.....	1 50	.....
Knitters	2	.....	1 75	.....
Knitters	a4	a13	60	50
Laborers	3	.....	1 25	.....
Picker	1	.....	1 40	.....
Picker	a1	.....	45	.....
Spinners, mule	7	.....	1 50	.....
Watchman	1	.....	1 50	.....

COAL, COKE, AND ORE (COAL), GREAT BRITAIN.—ESTAB. No. 131.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bankmen	6	.....	\$0 96	.....
Blacksmiths	2	.....	1 14	.....
Blacksmiths' helpers	2	.....	72	.....
Cart drivers	a3	.....	60	.....
Coal cleaners (jiggers)	a20	.....	60	.....
Drivers	a80	.....	50	.....
Engineer, stationary	1	.....	1 12	.....
Fillers	80	.....	66	.....
Firemen	14	.....	1 06	.....
Firemen	4	.....	72	.....
Furnace men	2	.....	72	.....
Furnace-men's helpers	a3	.....	48	.....
Joiners	4	.....	1 06	.....
Laborers	20	.....	72	.....
Lampmen	3	.....	68	.....
Machinist	1	.....	1 24	.....
Miners	160	.....	1 12	.....
Overseers (overlookers)	1	.....	2 40	.....
Overseers (overlookers)	2	.....	1 08	.....
Sawyers (timber)	3	.....	96	.....
Track layers	25	.....	96	.....
Trappers	a25	.....	48	.....
Takers-off	a20	.....	60	.....

COAL, COKE, AND ORE (IRON ORE), GREAT BRITAIN.—ESTAB. No. 132.

Time, 9 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bankman	1	.....	\$0 80	.....
Blacksmith	1	.....	86	.....
Cartman	1	.....	72	.....
Deputies	13	.....	1 06	.....
Drivers	11	.....	62	.....
Dumppers	4	.....	96	.....
Engine plane men	4	.....	74	.....
Engine wright	1	.....	65	.....
Fan-engine men	2	.....	96	.....
Firemen	2	.....	72	.....
Greaser	1	.....	48	.....
Hauling-engine man	1	.....	96	.....
Joiner	1	.....	96	.....
Laborers	3	.....	78	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COAL, COKE, AND ORE (IRON ORE), GREAT BRITAIN—ESTAB. No. 132—Continued.

Time, 9 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Miners	125	.....	\$1 08	.....
On-setters	3	.....	96	.....
Ore cleaner	1	.....	72	.....
Pumpman	1	.....	76	.....
Stableman	1	.....	80	.....
Striker	1	.....	50	.....
Timber leaders	2	.....	80	.....
Trappers	64	.....	22	.....
Tub cleaner	1	.....	48	.....
Weigher	1	.....	1 00	.....
Weighers	4	.....	80	.....
Winding-engine man	1	.....	1 04	.....

COAL, COKE, AND ORE (COAL), INDIANA—ESTAB. No. 133.

Time, 10 hours per day; 220 days the past year.

Blacksmiths	10	.....	\$1 80	.....
Drivers	50	.....	1 50	.....
Engineers	26	.....	2 00	.....
Laborers	83	.....	1 00	.....
Miners b	1200	.....	1 45	.....
Track layers	18	.....	2 00	.....
Weighers	9	.....	1 75	.....

COAL, COKE, AND ORE (COAL), INDIANA—ESTAB. No. 134.

Time, 10 hours per day; 225 days the past year.

Blacksmiths	6	.....	\$1 50	.....
Drivers	35	.....	1 25	.....
Engineers	6	.....	2 50	.....
Laborers	9	.....	1 00	.....
Mine boss	6	.....	3 50	.....
Miners c	175	.....	1 75	.....
Track layers	7	.....	2 20	.....
Weighers	6	.....	1 70	.....

COAL, COKE, AND ORE (COAL), MARYLAND—ESTAB. No. 135.

Time, 11 hours per day; 225 days the past year.

Blacksmiths	2	.....	\$1 90	.....
Blacksmith's helper	1	.....	1 50	.....
Carpenters	3	.....	1 70	.....
Drivers	31	.....	1 60	.....
Dumpers	9	.....	1 35	.....
Engineer	1	.....	2 25	.....
Fireman	1	.....	1 70	.....
Furnace man	1	.....	1 75	.....
Laborers	6	.....	1 35	.....
Miners d	247	.....	1 75	.....
Stablemen	2	.....	1 33	.....
Track layers	3	.....	2 00	.....
Undesignated	68	.....	70	.....
Weighers	3	.....	1 70	.....

a Children.

b Miners receive 80 cents per ton of 2,000 pounds, block coal (sliding scale).

COAL, COKE, AND ORE (COAL), MARYLAND—ESTAB. No. 136.

Time, 11 hours per day; 220 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	2	.....	\$1 90	.....
Blacksmiths' helpers	2	.....	1 85	.....
Drivers	36	.....	1 60	.....
Dumpers	6	.....	1 35	.....
Furnace men	8	.....	1 65	.....
Laborers	3	.....	1 35	.....
Miners d	315	.....	1 56	.....
Stableman	1	.....	1 84	.....
Stablemen	2	.....	1 29	.....
Track layers	4	.....	2 00	.....
Weigher	1	.....	2 00	.....
Weigher	1	.....	1 75	.....

COAL, COKE, AND ORE (COAL), MARYLAND—ESTAB. No. 137.

Time, 11 hours per day; 227 days the past year.

Blacksmiths	2	.....	\$2 00	.....
Blacksmiths' helpers	2	.....	1 60	.....
Brakeman	1	.....	1 50	.....
Carpenters	2	.....	1 80	.....
Drivers	16	.....	1 60	.....
Dumpers	5	.....	1 35	.....
Engineer	1	.....	2 15	.....
Laborers	7	.....	1 10	.....
Miners d	200	.....	1 57	.....
Stableman	1	.....	1 67	.....
Stableman	1	.....	1 00	.....
Track layers	3	.....	1 60	.....

COAL, COKE, AND ORE (COAL), MISSOURI—ESTAB. No. 138.

Time, 10 hours per day; — days the past year.

Blacksmith	1	.....	\$2 31	.....
Blacksmith's helper	1	.....	1 03	.....
Drivers	7	.....	2 00	.....
Engineer	1	.....	2 88	.....
Fireman	1	.....	2 31	.....
Laborers	18	.....	1 50	.....
Miners, machine	14	.....	2 46	.....
Miners	100	.....	1 88	.....
Mine boss	1	.....	2 88	.....
Pumper	1	.....	1 93	.....
Teamster	1	.....	1 03	.....
Track layer	1	.....	2 50	.....
Track layers	4	.....	2 31	.....
Weigher	1	.....	2 31	.....

COAL, COKE, AND ORE (IRON ORE), MISSOURI—ESTAB. No. 139.

Time, 10 hours per day; — days the past year.

Carpenters	4	.....	\$2 00	.....
Engineers	6	.....	1 75	.....
Machinists	12	.....	2 75	.....
Miners	125	.....	1 25	.....
Undesignated	635	.....	73	.....

c Miners receive 77 cents per ton of 2,000 pounds, block coal.

d Miners receive 40 cents per ton of 2240 lbs.

e Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 140.

Time, 10 hours per day; 211 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$1 75	
Cagers	2		1 75	
Drivers	5		2 00	
Dumpers	4		1 35	
Engineers	2		1 75	
Firemen	2		1 60	
Laborers	4		1 35	
Mine boss	1		3 00	
Miners a	100		1 75	
Oilier	1		1 35	
Track layers	2		1 75	
Trappers	65		55	
Trimmer	1		1 35	
Weigher	1		2 00	

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 141.

Time, 10 hours per day; 208 days the past year.

Blacksmith	1	\$2 00
Cager	1	1 50
Drivers	5	1 75
Engineer	1	1 85
Engineer	1	1 50
Firemen	3	1 35
Laborers	4	1 35
Mine boss	1	3 00
Miners a	70	2 00
Pumper, mine	1	1 85
Pumper, mine	1	1 25
Track layers	3	1 75
Trappers	65	60
Weigher	1	1 75

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 142.

Time, 9½ hours per day; 230 days the past year.

Blacksmith	1	\$2 00
Drivers	5	1 75
Engineer	1	2 00
Engineer	1	1 75
Mine boss	1	3 00
Miners a	60	2 00
Topmen	3	1 35
Track layers	2	1 75
Trappers	64	60
Weigher	1	1 75

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 143.

Time, 9 hours per day; 190 days the past year.

Blacksmith	1	\$1 80
Blacksmith's helper	1	1 40
Drivers	13	1 35
Engineer	1	1 65
Laborers	13	1 30
Mine boss	1	4 00

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 143—Concluded.

Time, 9 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Miners a	105		\$1 54	
Stableman	1		1 00	
Track layers	3		1 45	
Trappers	64		60	
Water hauler	1		1 50	
Weigher	1		1 60	

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 144.

Time, 10 hours per day; 203 days the past year.

Blacksmith	1	\$1 75
Drivers	3	1 35
Mine boss	1	2 11
Miners d	30	1 30
Oilier	61	50
Pumper, mine	61	50
Pushers	4	1 35
Slack hauler	1	1 25
Track layer	1	1 35
Trimmer	1	1 25

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 145.

Time, 9 hours per day; 200 days the past year.

Cager	1	\$1 35
Drivers	4	1 35
Dumper	1	1 25
Engineer	1	1 60
Mine boss	1	2 00
Miners c	28	1 38
Water hauler	1	1 85
Weigher	1	1 60

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB. No. 146.

Time, 10 hours per day; — days the past year.

Blacksmiths	2	\$2 50
Blacksmith	1	2 25
Brakeman	1	1 50
Carpenters	2	2 50
Drivers	25	1 50
Drivers, boss	2	2 00
Dumpers	4	1 50
Engineer, locomotive	1	2 50
Engineer, stationary	1	2 00
Furnace man	1	1 25
Laborers	12	1 50
Machinist	1	2 75
Mine bosses	2	3 00
Mine boss	1	2 50
Miners e	100	1 75
Slack hauler	1	1 50
Teamster	1	1 50
Track layers	4	1 75
Trimmers	3	1 50
Water hauler	1	2 00

a Miners receive 75 cents per ton of 2,000 pounds, lump coal (Tuscarawas Valley district).

b Youth.

c Miners receive 50 cents per ton of 2,000 pounds, lump coal (Jackson County district).

d Miners receive 55 cents per ton of 2,000 pounds, lump coal (Jackson County district).

e Miners receive 50 cents per ton of 2,000 pounds, lump coal (Hocking Valley district).

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COAL, COKE AND ORE (COAL), OHIO.—ESTAB.
No. 147.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$2 25	
Brakeman	1		1 32	
Carpenter	1		2 00	
Drivers	2		1 25	
Drivers	2		1 40	
Dumper	1		1 75	
Engineer	1		1 60	
Fireman	1		1 25	
Laborer	1		1 25	
Mine boss	1		2 50	
Miners	51		1 20	
Track layer	1		2 00	
Track layer	1		1 40	
Track layer	1		1 25	
Trapper	51		50	
Weighter	1		2 50	

COAL, COKE AND ORE (COAL), OHIO.—ESTAB. No. 148.

Time, 10 hours per day; — days the past year.

Blacksmith	2		\$2 00	
Drivers	13		1 40	
Dumper	1		1 50	
Mine boss	1		2 40	
Miners	150		1 50	
Stableman	1		1 80	
Trimmers	3		1 50	
Water hauler	1		1 40	
Weighter	1		1 60	

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB.
No. 149.

Time, 10 hours per day; — days the past year.

Carpenters	2		\$2 00	
Drivers	7		1 40	
Dumper	1		1 50	
Engineers	2		1 66	
Fireman	1		1 50	
Laborers	8		1 25	
Mine boss	1		2 66	
Miners	126		1 50	
Stableman	1		1 25	
Track layer	1		1 75	
Trimmers	3		1 40	
Water hauler	1		1 40	
Weighter	1		1 66	

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB.
No. 150.

Time, 10 hours per day; 180 days the past year.

Blacksmith	1		\$2 00	
Blacksmith	1		2 25	
Blacksmith's helper	1		1 50	

COAL, COKE, AND ORE (COAL), OHIO.—ESTAB.
No. 150—Concluded.

Time, 10 hours per day; 180 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cagers	3		\$1 80	
Drivers	3		2 25	
Drivers	3		2 05	
Drivers	8		1 80	
Dumpers	2		1 75	
Dumpers	3		1 50	
Engineer	1		2 25	
Engineer	1		1 75	
Fireman	1		1 50	
Laborers, skilled	3		2 25	
Laborers	4		1 55	
Mine boss	1		4 00	
Miners	175		\$2 40	
Oilers	2		1 25	
Pumpers, mine	2		1 88	
Screeners	3		1 50	
Stableman	1		1 25	
Sump digger	1		2 05	
Track layer	1		2 25	
Track layer	1		2 05	
Trimmer	1		2 00	
Trimmers	2		1 75	
Trappers	65		75	
Water haulers	67		85	
Weighters	1		2 00	

COAL, COKE, AND ORE (COAL), PENNSYLVANIA.—
ESTAB. No. 151.

Time, 10 hours per day; 200 days the past year.

Blacksmiths	3		\$2 50	
Blacksmiths	3		2 00	
Carpenters	3		2 50	
Drivers, boss	3		3 00	
Drivers	33		2 50	
Dumpers	12		2 50	
Engineer, locomotive	1		3 00	
Engineer, stationary	2		2 50	
Hitchers	9		2 25	
Hitchers' helpers	3		1 75	
Incline brakemen	3		2 80	
Loaders	3		2 75	
Mine bosses	3		3 00	
Miners	660		2 45	
Oilers	18		2 00	
Pumpers, mine	6		2 50	
Weighters	3		2 50	

COAL, COKE, AND ORE (COAL), PENNSYLVANIA.—
ESTAB. No. 152.

Time, 10 hours per day; 225 days the past year.

Blacksmith	1		\$2 25	
Drivers and laborers	50		1 70	
Mine bosses	2		3 00	
Miners	140		2 20	

^a Miners receive 40 cents per ton of 2,000 pounds, furnace coal (Hocking Valley district).

^b Youth.

^c Miners receive 50 cents per ton of 2,000 pounds, lump coal (Hocking Valley district).

^d This is for 1883. The price of mining has since been reduced one-half (Sunday Creek Valley district).

^e Miners receive 78 cents per ton of 2,000 pounds, lump coal (Pittsburgh district).

^f Miners receive 76 cents per ton of 2,000 pounds, lump coal (Pittsburgh district).

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COAL, COKE, AND ORE (COKE), PENNSYLVANIA.—
ESTAB. No. 153.

Time, 8 hours per day; 260 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	12	.....	\$2 50	.....
Carpenters	10	.....	2 50	.....
Chargers	61	.....	1 44	.....
Drawers	420	.....	1 00	.....
Drivers	70	.....	1 20	.....
Engineers	8	.....	1 08	.....
Foremen	10	.....	2 72	.....
Forkers	176	.....	1 44	.....
Laborers	800	.....	1 20	.....
Levellers	61	.....	1 44	.....
Mine bosses	11	.....	2 00	.....
Miners	790	.....	1 52	.....
Yard bosses	12	.....	2 00	.....

COAL, COKE, AND ORE (COKE), PENNSYLVANIA.—
ESTAB. No. 154.

Time, 8 hours per day; 260 days the past year.

Chargers	17	.....	\$1 44	.....
Drawers	152	.....	1 00	.....
Engineers	3	.....	1 76	.....
Foremen	5	.....	2 72	.....
Forkers	69	.....	1 44	.....
Laborers	125	.....	1 20	.....
Levellers	17	.....	1 44	.....
Mine bosses	4	.....	2 00	.....
Miners	265	.....	1 52	.....
Yard bosses	5	.....	2 00	.....

COAL, COKE, AND ORE (COAL), VIRGINIA.—ESTAB.
No. 155.

Time, 10 hours per day; 300 days the past year.

Blacksmith	1	.....	\$1 75	.....
Blacksmith's helper	1	.....	1 00	.....
Carpenter	1	.....	1 75	.....
Cleaners, coal	325	.....	50	.....
Drivers	57	.....	75	.....
Engineers	2	.....	1 25	.....
Firemen	2	.....	1 00	.....
Laborers	13	.....	95	.....
Mine bosses	2	.....	2 00	.....
Miners	26	.....	1 75	.....
Miners	27	.....	1 25	.....
Timbermen	6	.....	1 25	.....
Track layers	6	.....	1 25	.....

COAL, COKE, AND ORE (IRON ORE), VIRGINIA.—
ESTAB. No. 156.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	2	.....	\$2 85	.....
Blacksmiths' helpers	2	.....	1 38	.....
Carpenters	5	.....	1 07	.....
Engineer	1	.....	3 20	.....
Foreman	1	.....	8 00	.....
Harness repairer	1	.....	1 92	.....
Machinist	1	.....	1 45	.....
Mine bosses	8	.....	1 07	.....
Mine boss	1	.....	2 25	.....
Miners	220	.....	1 05	.....
Stablemen	2	.....	1 38	.....
Timbermen	2	.....	2 00	.....

COAL, COKE, AND ORE (IRON ORE), VIRGINIA.—
ESTAB. No. 157.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1	.....	\$1 35	.....
Brakemen	3	.....	1 00	.....
Carpenter	1	.....	1 35	.....
Engineers	2	.....	1 75	.....
Feeder	1	.....	1 13	.....
Fireman	1	.....	1 13	.....
Laborer	1	.....	1 13	.....
Mine bosses	3	.....	1 35	.....
Miners	60	.....	1 00	.....
Teamster	1	.....	90	.....
Water boys	54	.....	45	.....

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 158.

Time, 10 hours per day; 260 days the past year.

Blacksmiths	2	.....	\$3 00	.....
Drivers	16	.....	1 00	.....
Drum runners	2	.....	1 71	.....
Laborers	10	.....	1 20	.....
Mine bosses	2	.....	2 50	.....
Miners	105	.....	1 40	.....
Track layers	2	.....	1 80	.....
Trappers	52	.....	50	.....
Weighers	2	.....	1 80	.....

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 159.

Time, 11 hours per day; 240 days the past year.

Blacksmith	1	.....	\$2 25	.....
Carpenter	1	.....	2 00	.....
Driver	1	.....	1 00	.....
Drivers	3	.....	1 45	.....
Drivers	4	.....	1 25	.....
Laborers	5	.....	1 10	.....
Mine boss	1	.....	3 50	.....
Miners	90	.....	1 00	.....
Track layer	1	.....	1 80	.....
Undesignated	54	.....	50	.....

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 160.

Time, 10 hours per day; 300 days the past year.

Blacksmith	1	.....	\$2 00	.....
Blacksmith's helper	1	.....	1 25	.....
Drivers	5	.....	1 40	.....
Drivers	53	.....	75	.....
Incline brakeman	51	.....	50	.....
Mine boss	1	.....	3 00	.....
Miners	52	.....	1 20	.....
Teamster	1	.....	1 50	.....

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 161.

Time, 9 hours per day; 300 days the past year.

Drivers	5	.....	\$1 00	.....
Laborers	5	.....	1 10	.....
Miners	30	.....	1 50	.....
Track layer	1	.....	1 25	.....

a This establishment mines its own coal. The miners receive 23½ cents per ton of 2,000 pounds run of mine coal (Connellsville district). b Youth. c Miners receive 40 cents per ton of 2,340 pounds run of mine coal (New River district). d Miners receive 40 cents per ton of 2,000 pounds run of mine coal (New River district).

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 224.

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 162.

Time, 10 hours per day; 175 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith.....	1		\$2 00	
Coal cleaner.....	1		1 25	
Drivers.....	4		1 05	
Machine brakeman.....	1		1 25	
Mine boss.....	1		2 00	
Miners.....	85		1 05	
Track layer.....	1		2 00	
Weighter.....	1		2 00	

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 163.

Time, 10 hours per day; 240 days the past year.

Blacksmith.....	1		\$2 00	
Carpenter.....	1		1 50	
Drivers.....	6		1 50	
Laborers.....	5		1 25	
Mine boss.....	1		2 50	
Miners.....	50		2 00	
Weighter.....	1		1 50	

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 164.

Time, 10 hours per day; 300 days the past year.

Blacksmiths.....	4		\$2 00	
Captain, tug-boat.....	1		1 05	
Carpenters.....	6		2 00	
Carpenters.....	2		1 50	
Caulkers, boat.....	2		2 00	
Caulkers, boat.....	3		1 50	
Driver.....	1		2 25	
Drivers.....	12		1 75	
Drivers.....	12		1 50	
Drivers.....	10		1 25	
Dumper.....	1		1 90	
Engineer, locomotive.....	1		3 25	
Engineer, locomotive.....	1		1 75	
Engineers, locomotive.....	2		1 25	
Engineer, stationary.....	1		1 83	
Laborers.....	15		1 25	
Mine boss.....	1		3 25	
Mine boss.....	1		2 40	
Miners.....	180		1 87	
Pumpers, boat.....	3		1 50	
River boss.....	1		2 00	
Saddleman.....	1		2 00	
Saddleman.....	1		1 25	
Track layers.....	3		2 00	
Track layers.....	8		1 75	
Track layers.....	6		1 50	
Trappers.....	10		50	
Weighters.....	2		2 00	

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 165.

Time, 10 hours per day; 163 days the past year.

Blacksmiths.....	2		\$2 00	
Carpenter.....	1		2 00	

a Miners receive 56 cents per ton of 2,240 pounds, gas lump coal (Kanawha Valley district).

b Miners receive 62½ cents per ton of 2,240 pounds, splint lump coal (Kanawha Valley district).

c Youth.

COAL, COKE, AND ORE (COAL), WEST VIRGINIA.—
ESTAB. No. 165—Concluded.

Time, 10 hours per day; 163 hours the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carpenter.....	1		\$1 75	
Caulker, boat.....	1		1 75	
Caulker, boat.....	1		1 50	
Drivers.....	2		1 75	
Drivers.....	12		1 50	
Drivers.....	3		1 37	
Dumpers.....	5		1 25	
Engineer.....	1		2 00	
Engineers.....	2		1 25	
Furnace man.....	1		1 25	
Inspector.....	1		2 00	
Miners.....	120		1 87	
Oiler.....	1		1 25	
Pumper, boat.....	1		1 50	
Pumpers, boat.....	3		1 25	
River boss.....	1		1 75	
Screeners.....	3		1 87	
Screeners.....	1		75	
Stableman.....	2		1 25	
Track layer.....	1		2 00	
Track layer.....	1		1 75	
Track layers.....	2		1 02	
Trappers.....	7		50	
Weighter.....	1		2 00	

COAL, COKE, AND ORE (COKE), WEST VIRGINIA.—
ESTAB. No. 166.

Time, 10 hours per day; 200 days the past year.

Chargers.....	2		\$1 20	
Drawers.....	9		1 20	
Laborers.....	9		1 00	

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. No. 167.

Time, 10 hours per day; 275 days the past year.

Cleaners.....	2		\$1 75	
Cupola men.....	2		1 50	
Engineer.....	1		2 50	
Grinders and polishes.....	4		2 00	
Mounters.....	5		2 00	
Moulders.....	22		8 75	
Pattern makers.....	3		3 50	

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. No. 168.

Time, 10 hours per day; — days the past year.

Carpenters and pattern makers.....	7		\$2 00	
Cupola men.....	8		1 25	
Grinders and trimmers.....	18		1 25	
Moulders.....	75		3 25	
Mounters.....	23		1 50	
Porters.....	6		1 50	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is *not* a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. NO. 169.

Time, 10 hours per day; 266 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices, mould-ers	a8	.....	\$0 50	.....
Carpenters	2	.....	2 25	.....
Cupola men	3	.....	1 75	.....
Engineer	1	.....	2 25	.....
Grinders	4	.....	1 50	.....
Laborers	22	.....	1 50	.....
Moulders	5	.....	3 50	.....
Moulders	25	.....	2 00	.....
Mounters	8	.....	2 00	.....
Pattern fitters	3	.....	2 75	.....
Pattern makers	3	.....	4 00	.....
Watchman	1	.....	1 75	.....

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. NO. 170.

Time, 10 hours per day; 265 days the past year.

Moulders	26	.....	\$3 09	.....
Mounters	8	.....	2 25	.....
Pattern makers	4	.....	2 75	.....

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. NO. 171.

Time, 10 hours per day; 280 days the past year.

Apprentices, mould-ers	a2	.....	\$0 75	.....
Engineer	1	.....	2 00	.....
Laborers	4	.....	1 25	.....
Moulders	16	.....	2 25	.....
Mounter	1	.....	2 50	.....
Pattern maker	1	.....	2 50	.....

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. NO. 172.

Time, 10 hours per day; 270 days the past year.

Apprentices, mould-ers	a7	.....	\$1 35	.....
Cleaners and grinders	3	.....	1 50	.....
Carpenters and fit-ers	3	.....	2 25	.....
Driller	1	.....	2 00	.....
Engineer	1	.....	2 25	.....
Foreman	1	.....	4 00	.....
Foreman	1	.....	2 25	.....
Melters	2	.....	2 00	.....
Moulders	20	.....	3 50	.....
Mounters	a4	.....	75	.....
Nickel plater	1	.....	2 25	.....
Nickel-platers' help-ers	a4	.....	65	.....
Pattern and flask man	1	.....	2 00	.....
Watchman	1	.....	1 40	.....

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. NO. 173.

Time, 10 hours per day; 281 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices, mould-ers	a10	.....	\$1 25	.....
Cupola men and la-borers	20	.....	1 23	.....
Foreman	1	.....	4 00	.....
Grinders and trim-mers	16	.....	1 23	.....
Moulders	23	.....	3 60	.....

COOKING AND HEATING APPARATUS (STOVES),
ILLINOIS.—ESTAB. NO. 174.

Time, 10 hours per day; 270 days the past year.

Apprentices, mould-ers	a5	.....	\$1 50	.....
Cupola men	3	.....	1 75	.....
Engineer	1	.....	2 00	.....
Laborers	10	.....	1 23	.....
Moulders	17	.....	3 50	.....
Mounters	4	.....	2 00	.....

COOKING AND HEATING APPARATUS (STOVES,
MACHINERY), ILLINOIS.—ESTAB. NO. 175.

Time, 10 hours per day; 270 days the past year.

Apprentices, mould-ers	a10	.....	\$1 25	.....
Blacksmith	1	.....	1 75	.....
Blacksmith	1	.....	1 50	.....
Blacksmiths' helpers	2	.....	1 25	.....
Cleaners	a5	.....	1 00	.....
Cleaners	a10	.....	75	.....
Engineer	1	.....	1 50	.....
Flask makers	6	.....	2 00	.....
Foreman	1	.....	3 00	.....
Heater	1	.....	1 75	.....
Laborers	5	.....	1 50	.....
Machinists	10	.....	2 00	.....
Moulders	38	.....	2 50	.....
Mounters	5	.....	2 25	.....
Pattern maker	1	.....	2 50	.....
Pattern fitter	1	.....	2 25	.....
Pattern fitter	1	.....	2 00	.....
Polisher	1	.....	1 50	.....
Undesignated	a12	.....	75	.....
Watchman	1	.....	1 25	.....
Yard men	2	.....	1 35	.....

COOKING AND HEATING APPARATUS (STOVES),
KENTUCKY.—ESTAB. NO. 176.

Time, 10 hours per day; 250 days the past year.

Laborers	7	.....	\$2 00	.....
Laborers	6	.....	1 50	.....
Moulders	37	.....	2 25	.....
Mounters	3	.....	2 50	.....
Mounters	3	.....	2 00	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COOKING AND HEATING APPARATUS (STOVES),
MICHIGAN.—ESTAB. No. 177.

Time, 10 hours per day; 258 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices, mould-ers	a350		\$0 70	
Blacksmiths	2		2 25	
Buffers	10		1 25	
Cleaners	6		1 25	
Cleaners	a6		60	
Crater	1		1 75	
Crater	1		1 13	
Designer	1		4 00	
Dipper and baker	1		1 25	
Dipper and baker	a1		75	
Dippers and bakers	a3		50	
Draughtsman	1		5 00	
Drillers	10		2 00	
Engineer	1		2 00	
Fallow-board makers	4		2 25	
Filers	2		3 00	
Filers	3		2 67	
Filers	4		2 12	
Filers	13		1 63	
Fireman	1		1 50	
Fitters	10		2 00	
Flask carriers	2		2 25	
Flask carriers	4		1 50	
Flask maker	1		2 00	
Flask makers	2		1 75	
Flask maker	1		1 00	
Foreman	1		6 00	
Foreman	2		4 50	
Foreman	2		4 00	
Foreman	3		3 25	
Foreman	2		3 00	
Foreman	3		3 00	
Foreman	3		2 25	
Grinders	20		1 25	
Inspectors	2		2 50	
Inspector	1		3 53	
Ladleman	1		1 50	
Millers	6		2 00	
Miller, cinder	1		1 50	
Miller, facing	1		1 50	
Machinist	1		2 88	
Machinist	1		2 50	
Melter	1		2 75	
Melters	16		1 50	
Melter	1		1 25	
Mica man	1		75	
Moulders	100		2 75	
Moulders	70		1 67	
Mounters	100		2 00	
Other	1		2 00	
Packer	1		2 50	
Packers	2		1 50	
Packers	4		1 33	
Packer	a1		50	
Pattern carrier	1		1 88	
Pattern maker	1		3 50	
Pattern makers	2		3 00	
Pattern makers	3		2 50	
Pattern makers	13		2 00	
Pattern maker	1		1 75	
Pattern makers	2		1 50	
Pattern maker	a1		1 00	
Pattern maker	a1		75	
Pickers	6		1 17	
Platers	a6		75	
Polishers	a14		50	
Porter	1		1 78	
Porter	1		2 88	
Porter	1		2 50	
Porter	1		1 88	
Porters	2		1 50	
Porters	2		1 33	
Repairers	2		1 75	
Repairer	1		1 50	

COOKING AND HEATING APPARATUS (STOVES),
MICHIGAN.—ESTAB. No. 177—Concluded.

Time, 10 hours per day; 258 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Rod and bolt men	a3		\$0 50	
Sawyer	1		2 00	
Stableman	1		2 00	
Striper	1		2 25	
Striper	1		1 00	
Sweeper	1		1 25	
Teamsters	3		1 83	
Teamsters	3		1 54	
Trimmer	1		2 00	
Trimmer	1		1 50	
Undesignated	5		1 30	
Washers	3		1 00	
Watchmen	3		2 00	
Waxer	1		1 00	
Weigher	1		1 00	
Wheel maker	1		2 00	
Wheeler and pilers	6		1 50	
Wrappers	a5		60	
Yard men	9		1 33	

COOKING AND HEATING APPARATUS (STOVES),
MICHIGAN.—ESTAB. No. 178.

Time, 10 hours per day; 260 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices, mould-ers	a250		\$0 65	
Blacksmith	1		2 75	
Blacksmith	1		1 88	
Blacksmith's helper	1		1 00	
Blacksmith's helper	a1		60	
Buffer	1		1 75	
Buffer	1		1 38	
Buffers	9		1 25	
Buffer	1		1 13	
Buffers	2		75	
Cleaners and sweep-ers	2		1 12	
Craters	4		1 63	
Craters	2		1 30	
Craters	3		1 00	
Driller and cutter	1		1 00	
Drillers and cutters	a6		65	
Elevator tenders	2		1 00	
Engineer	1		2 00	
Filer	1		4 50	
Filers	11		3 00	
Filers	4		2 75	
Filers	6		2 20	
Filer	a1		88	
Filers	a5		60	
Finisher and packer	1		2 25	
Finishers and packers	3		2 00	
Finishers and packers	6		1 63	
Finishers and packers	5		1 15	
Finishers and packers	a15		75	
Fireman	1		1 88	
Flask makers	2		1 75	
Flask makers	6		1 40	
Foreman	1		6 50	
Foremen	2		5 25	
Foremen	6		4 25	
Foremen	4		2 90	
Grinder	1		2 00	
Grinders	30		1 25	
Heaters	2		2 25	
Heaters	6		1 75	
Heaters	2		1 63	
Heaters	32		1 40	
Heaters	11		1 25	
Japanner	1		3 00	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COOKING AND HEATING APPARATUS (STOVES),
MICHIGAN.—ESTAB. No. 178—Concluded.

Time, 10 hours per day; 280 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Japanner.....	1		\$1 00	
Japanner's assistant.....	a1		50	
Laborer.....	1		2 25	
Laborers.....	3		1 90	
Laborers.....	11		1 50	
Laborers.....	4		1 20	
Laborers.....	a3		60	
Machinist.....	1		3 00	
Machin sts.....	2		1 75	
Moulder.....	1		4 00	
Moulders.....	252		2 25	
Moulders.....	7		1 60	
Moulders.....	a5		55	
Moulders' helpers.....	84		1 25	
Moulder and pattern-maker.....	1		5 00	
Moulder and pattern-maker.....	1		3 50	
Moulders and pattern makers.....	3		3 00	
Mounters.....	8		2 25	
Mounters.....	10		2 00	
Mounters.....	16		1 63	
Mounters.....	17		1 25	
Mounters.....	a6		75	
Nickel plater.....	1		1 75	
Nickel platers.....	4		1 88	
Nickel platers.....	a6		75	
Nickel trimmers.....	9		1 25	
Nickel trimmers.....	2		1 00	
Nickel trimmers.....	a5		75	
Nickel trimmers.....	a3		55	
Pattern maker.....	1		5 00	
Pattern maker.....	1		3 50	
Pattern makers.....	3		3 00	
Pattern maker.....	1		3 75	
Pattern makers.....	5		3 10	
Pattern makers.....	6		2 25	
Pattern makers.....	4		1 63	
Pattern makers.....	6		1 13	
Pattern makers.....	a2		60	
Polishers.....	31		2 25	
Polisher.....	1		1 50	
Polisher.....	1		1 25	
Polishers.....	a3		75	
Stove blackener.....	1		1 25	
Teamsters.....	5		1 80	
Teamsters.....	2		1 50	
Teamsters.....	3		1 25	
Tinsmiths.....	6		2 30	
Tinsmiths.....	2		2 10	
Tinsmith.....	1		1 75	
Tinsmith.....	1		1 50	
Tinsmiths.....	2		1 00	
Tinsmith's helper.....	a1		75	
Undesignated.....	a1		50	
Watchmen.....	2		2 13	
Watchmen.....	2		1 40	
Wheelers and cleaners.....	2		2 30	
Wheelers and cleaners.....	9		1 50	
Wheelers and cleaners.....	10		1 13	
Wheelers and cleaners.....	a5		75	
Wheelers and cleaners.....	a20		60	
Yard men.....	2		1 25	

COOKING AND HEATING APPARATUS (STOVES),
NEW YORK.—ESTAB. No. 179.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carpenters.....	3		\$2 00	
Carpenter.....	1		1 00	
Cupola man.....	1		1 50	
Cupola man.....	1		1 33	
Engineer.....	1		2 00	
Foreman.....	1		3 00	
Foreman.....	1		2 50	
Furnace man.....	1		1 25	
Grinder.....	1		1 50	
Japanner.....	1		1 25	
Laborers.....	2		1 55	
Laborer.....	1		1 25	
Mason.....	1		3 00	
Mason.....	1		2 00	
Melter.....	1		2 00	
Moulder.....	1		4 16	
Moulder.....	1		3 67	
Moulder.....	1		2 70	
Moulders.....	3		3 33	
Moulders.....	11		2 92	
Moulders.....	11		2 58	
Moulders.....	12		2 25	
Moulders.....	3		1 67	
Moulders.....	7		1 30	
Moulders' helpers.....	2		1 44	
Moulders' helpers.....	a2		75	
Moulders' helper.....	a1		50	
Mounter.....	1		5 08	
Mounters.....	2		4 58	
Mounter.....	1		4 00	
Mounters.....	6		2 09	
Mounters' helpers.....	6		1 35	
Mounters' helpers.....	a2		59	
Pattern fitter.....	1		1 58	
Pattern fitter.....	1		2 00	
Pattern fitter.....	a1		1 09	
Pollisher.....	1		3 75	
Sand boys.....	a3		63	
Scratcher.....	1		4 58	
Stove blackener.....	1		1 25	
Teamster.....	1		1 50	
Teamsters.....	2		1 25	
Tinsmith.....	1		2 92	
Tinsmiths.....	5		2 09	
Tinsmiths' helpers.....	a3		53	
Watchman.....	1		1 75	

COOKING AND HEATING APPARATUS (STOVES,
RANGERS), NEW YORK.—ESTAB. No. 180.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices.....	a250		\$0 60	
Blacksmiths.....	5		1 83	
Blacksmiths' helpers.....	3		1 17	
Burnisher.....	1		1 50	
Carpenters.....	15		2 43	
Cleaners.....	3		1 12	
Cleaners.....	2		1 43	
Cupola men.....	2		2 16	
Derrick man.....	1		92	
Designer.....	1		5 00	
Draughtsmen.....	2		2 67	
Engineer.....	1		2 50	
Facers.....	2		2 00	
Filers.....	3		2 33	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COOKING AND HEATING APPARATUS (STOVES, RANGES), NEW YORK.—ESTAB. No. 180—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Firemen	2		\$1 75	
Fire-brick men	2		1 25	
Foreman	1		5 00	
Foremen	2		4 00	
Foremen	5		3 00	
Grinders	14		1 50	
Instructor	1		2 08	
Iron pilers	6		1 12	
Japanners	2		2 00	
Laborers	188		1 25	
Ladle men	4		1 50	
Machinist	1		2 33	
Menders	3		1 75	
Mica men	3		1 96	
Moulders, contract-				
ors	18		4 00	
Moulders	365		3 16	
Moulder	1		2 50	
Mounters, contract-				
ors	4		4 50	
Mounters	4		2 79	
Mounters	5		2 50	
Nickel fitters	3		2 25	
Nickel platers	4		2 79	
Oilers	2		1 50	
Packers	6		1 65	
Painters	2		2 00	
Pattern carriers	2		1 08	
Pattern fitters	6		1 25	
Pattern fitters	2		2 33	
Pattern fitters	4		2 00	
Pattern fitters	12		1 08	
Pattern maker	1		2 71	
Pattern makers	3		2 25	
Polisher	1		4 66	
Polishers	4		2 33	
Polishers	16		2 17	
Porters	2		1 50	
Rod and bolt men	3		1 67	
Sand and clay men	3		1 00	
Shippers	4		2 00	
Sprue chippers	2		1 50	
Stove blackeners	2		1 50	
Stove liners	4		2 33	
Tamper	1		2 29	
Teamsters	5		1 67	
Teamsters	3		1 50	
Tinsmiths	7		2 50	
Tinsmiths	11		1 79	
Watchmen	6		1 50	

COOKING AND HEATING APPARATUS (STOVES, RANGES), NEW YORK.—ESTAB. No. 181.

Time, 10 hours per day; — days the past year.

Apprentices, mould-				
ers	2192		\$0 77	
Blacksmiths	7		1 80	
Blacksmiths' helpers	5		1 16	
Burnisher	1		1 50	
Carpenters	8		2 50	
Carpenters	9		1 87	
Cleaners	6		1 87	
Cleaners	6		1 04	
Cupola man	1		1 66	
Cupola men	2		2 16	

COOKING AND HEATING APPARATUS (STOVES, RANGES), NEW YORK.—ESTAB. No. 181—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Derrick man	1		\$1 25	
Designer	1		5 00	
Draughtsman	1		3 00	
Draughtsman	1		1 50	
Engineers	2		2 50	
Facers	2		2 00	
Fire-clay men	2		2 00	
Firemen	2		1 71	
Flask carriers	8		1 00	
Foreman	1		5 00	
Foreman	1		4 16	
Foremen	3		3 00	
Foremen	2		2 66	
Foremen	2		2 16	
Grinders	15		1 50	
Heaters	3		1 50	
Iron breakers	2		1 33	
Inspector	1		1 83	
Instructor	1		2 12	
Iron pilers	6		1 23	
Japanners	4		2 00	
Laborer	1		1 66	
Laborers	161		1 33	
Ladle men	4		1 50	
Machinist	1		2 25	
Melters	4		1 50	
Mica men	6		1 86	
Millwright	1		2 00	
Moulder	1		4 00	
Moulders, contract-				
ors	12		4 00	
Moulders	299		3 62	
Moulders	151		2 87	
Moulder	1		2 50	
Mounters, contract-				
ors	4		5 00	
Mounters, contract-				
ors	3		4 41	
Mounters	2		2 66	
Mounters	5		2 50	
Nickel platers	5		3 00	
Packers	7		1 58	
Painters	2		2 00	
Pattern carriers	4		1 08	
Pattern fitters	4		2 00	
Pattern fitters	8		1 28	
Pattern fitters	2		2 33	
Pattern fitters	20		1 06	
Pattern maker	1		3 00	
Pattern makers	4		1 81	
Polisher	1		4 33	
Polishers	15		2 30	
Repairer	1		1 50	
Rod and bolt men	4		1 66	
Sand and clay men	5		1 00	
Shippers	3		2 00	
Shippers' assistants	10		1 25	
Sprue chippers	2		1 50	
Sprue chippers	3		1 12	
Stove blackeners	2		1 50	
Stove liners	9		2 40	
Tamper	1		2 21	
Teamsters	4		1 75	
Teamsters	4		1 50	
Tinsmiths	9		1 95	
Tinsmiths	13		1 60	
Watchmen	7		1 50	
Weighers	2		1 66	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COOKING AND HEATING APPARATUS (STOVES, RANGES), NEW YORK.—ESTAB. No. 182.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices	53		\$0 83	
Blacksmith	1		2 07	
Blacksmith's helper	1		1 58	
Carpenters	2		2 25	
Cupola men	2		2 38	
Designer	1		6 00	
Draughtsman	1		3 00	
Draughtsman	1		1 50	
Engineer	1		2 50	
Fireman	1		1 58	
Flask fixer	1		1 07	
Foreman	1		4 07	
Foreman	1		4 17	
Foreman	5		3 00	
Foreman	1		2 50	
Grate setter	1		1 58	
Grinder	1		1 87	
Grinders	2		1 07	
Heater	1		2 00	
Instructor	1		1 79	
Japanner	1		1 83	
Laborers	68		1 50	
Ladle men	2		1 07	
Machinists	2		2 33	
Melter	1		2 29	
Mica man	1		2 33	
Moulder	1		4 00	
Moulders	58		3 65	
Mounter	1		4 00	
Mounters	13		3 21	
Nickel platers	8		2 07	
Painter	1		2 00	
Pattern fitter	1		1 07	
Pattern fitter	1		2 00	
Pattern fitter	1		1 71	
Pattern makers	2		2 33	
Polisher	1		2 07	
Polisher	1		1 96	
Sand and scrap men	15		1 14	
Scrubbers	4		1 29	
Sprue chipper	1		1 07	
Stove blackener	1		1 50	
Stove liners	2		2 29	
Tamper	1		2 25	
Teamsters	2		2 00	
Timekeepers	2		1 37	
Tinsmith	1		2 42	
Tinsmiths	7		2 25	
Watchman	1		1 50	
Watchman	1		1 21	
Weigher	1		3 00	
Weigher	1		1 50	

COOKING AND HEATING APPARATUS (STOVES, RANGES), NEW YORK.—ESTAB. No. 183.

Time, 10 hours per day; — days the past year.

Blacksmith	1		\$2 33
Burnisher	1		1 50
Cupola men	2		1 40
Cupola men	2		1 07
Draughtsman	1		3 00
Elevator tender	1		1 42
Facer	1		1 75
Flask carrier	1		1 50
Foreman	1		3 67
Foreman	1		3 00

COOKING AND HEATING APPARATUS (STOVES, RANGES), NEW YORK.—ESTAB. No. 183—Concl'd.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Grinders	2		\$1 50	
Iron breaker	1		1 50	
Iron piler	1		1 50	
Japanner	1		1 46	
Laborers	2		1 50	
Laborers	10		1 25	
Ladle men	2		1 07	
Machinist	1		2 30	
Melter	1		1 90	
Mica man	1		2 50	
Moulder	1		4 00	
Moulders	22		3 25	
Mounters	6		3 17	
Nickel plater	1		2 07	
Pattern fitter	1		4 00	
Pattern fitter	1		1 50	
Pattern fitter	1		1 93	
Pattern maker	1		3 00	
Polisher	1		4 00	
Polishers	2		3 00	
Porter	1		1 78	
Porters	2		1 43	
Porter	at		53	
Rod and bolt man	1		1 75	
Sand and clay man	1		1 50	
Sprue chipper	1		1 58	
Stove blackener	1		1 46	
Stove liner	1		2 29	
Stove liner	1		1 79	
Sweeper	1		1 25	
Teamster	1		1 58	
Tinsmith	1		2 37	
Tinsmiths	5		2 00	
Tinsmiths' helpers	5		65	
Watchmen	2		1 50	

COOKING AND HEATING APPARATUS (STOVES), OHIO.—ESTAB. No. 184.

Time, 10 hours per day; 275 days the past year.

Carpenters	2		\$2 25
Engineer	1		3 00
Laborers	12		1 75
Moulders	24		2 90
Moulders	40		2 40
Moulders	21		2 00
Mounters	45		1 91
Pattern fitters	7		1 87
Pattern makers	5		2 85
Tinsmiths	3		2 11

COOKING AND HEATING APPARATUS (STOVES), OHIO.—ESTAB. No. 185.

Time, 10 hours per day; 250 days the past year.

Engineer	1		\$3 25
Melter	1		2 50
Melter's helper	1		1 75
Moulders	80		2 70
Moulders	13		2 59
Mounters' helpers	18		1 25
Undesignated	41		1 37

aYouth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COOKING AND HEATING APPARATUS (STOVES),
OHIO.—ESTAB. No. 186.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentices, mould-ers	a4	.....	\$0 90	.....
Cupola man	1	.....	2 00	.....
Laborers	3	.....	1 50	.....
Moulders	15	.....	2 75	.....
Mounters	4	.....	1 95	.....

COOKING AND HEATING APPARATUS (STOVES),
OHIO.—ESTAB. No. 187.

Time, 10 hours per day; — days the past year.

Apprentices, mould-ers	a10	.....	\$0 80	.....
Carpenters	2	.....	2 00	.....
Cupola man	1	.....	1 75	.....
Cupola man	1	.....	1 40	.....
Engineer	1	.....	1 50	.....
Foremen	2	.....	3 00	.....
Moulders	25	.....	2 75	.....
Mounters	10	.....	2 25	.....
Pattern maker	1	.....	3 33	.....
Polishers	6	.....	1 35	.....

COOKING AND HEATING APPARATUS (STOVES),
OHIO.—ESTAB. No. 188.

Time, 10 hours per day; 260 days the past year.

Apprentices, mould-ers	a35	.....	\$0 93	.....
Cupola men and la-borers	64	.....	1 53	.....
Foremen	7	.....	3 63	.....
Moulders	129	.....	2 54	.....
Mounters	66	.....	2 30	.....
Nickel platers	30	.....	1 53	.....
Nickel platers	a29	.....	80	.....
Pattern fitters	15	.....	1 70	.....
Pattern makers	12	.....	2 30	.....
Polishers	7	.....	1 50	.....
Porters	5	.....	1 47	.....
Steve blackeners	2	.....	1 33	.....

COOKING AND HEATING APPARATUS (STOVES, MA-
CHINERY), OHIO.—ESTAB. No. 189.

Time, 10 hours per day; 300 days the past year.

Blacksmith	1	.....	\$1 75	.....
Cupola men and cleaners	4	.....	1 40	.....
Engineer	1	.....	2 00	.....
Machinists	7	.....	1 80	.....
Machinists' helpers	a2	.....	50	.....
Moulders	15	.....	3 00	.....
Mounters	4	.....	2 50	.....
Painter	1	.....	2 00	.....
Pattern maker	1	.....	2 50	.....
Pump men	3	.....	2 00	.....
Shippers	2	.....	1 50	.....
Transfer	1	.....	1 50	.....
Watchman	1	.....	1 00	.....

COOKING AND HEATING APPARATUS (STOVES),
PENNSYLVANIA.—ESTAB. No. 190.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1	.....	\$1 75	.....
Engineer	1	.....	2 25	.....
Foremen	2	.....	3 00	.....
Laborers	10	.....	1 35	.....
Moulders	48	.....	3 50	.....
Mounters	12	.....	3 00	.....
Pattern makers	2	.....	3 00	.....
Teamster	1	.....	1 50	.....
Watchman	1	.....	1 50	.....

COOKING AND HEATING APPARATUS (STOVES),
WEST VIRGINIA.—ESTAB. No. 191.

Time, 10 hours per day; 256 days the past year.

Apprentices, mould-ers	a12	.....	\$1 25	.....
Carpenter	1	.....	2 00	.....
Cupola man	1	.....	2 25	.....
Driller	1	.....	1 66	.....
Engineer	1	.....	1 75	.....
Filer	1	.....	2 00	.....
Laborers	18	.....	1 25	.....
Moulders	23	.....	2 50	.....
Mounters	9	.....	1 65	.....
Pattern maker	1	.....	2 25	.....

COTTON COMPRESSING, ARKANSAS.—ESTAB. No.
192.

Time, 10 hours per day; — days the past year.

Band clippers	3	.....	\$1 50	.....
Firemen	2	.....	1 75	.....
Return tiers	5	.....	1 75	.....
Sewers	6	.....	1 75	.....
Tiers	6	.....	3 00	.....
Truckmen	4	.....	1 25	.....

COTTON GOODS (PRINT CLOTH), CONNECTICUT.—
ESTAB. No. 193.

Time, 11 hours per day; 303 days the past year.

Back boys	a12	.....	\$0 35	.....
Baler	1	.....	1 00	.....
Bobbin tender	1	.....	1 50	.....
Carpenter	1	.....	1 75	.....
Card grinders	2	.....	1 25	.....
Card strippers	4	.....	1 20	.....
Dofters	a5	4	60	\$0 60
Dofters	a5	.....	54	.....
Drawer	.....	1	.....	75
Drawers	.....	3	.....	1 20
Drawers	.....	5	.....	96
Elevator tender	1	.....	1 00	.....
Engineer	1	.....	2 50	.....
Filling hand	1	.....	1 00	.....
Folder	1	.....	1 33	.....
Inspector	.....	1	.....	1 12
Laborers	2	.....	1 00	.....
Lappers	2	.....	1 00	.....
Lapper	1	.....	71	.....
Machinists	2	.....	1 50	.....
Oil	.....	.....	96	.....
Overseers	2	.....	2 75	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (PRINT CLOTH), CONNECTICUT.—
ESTAB. No. 193—Concluded.

Time, 11 hours per day; 303 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Overseers	2		\$2 67	
Overseer	1		2 00	
Railway hand		1		\$0 63
Repair hand	1		2 33	
Second hands	2		1 50	
Second hand	1		1 42	
Second hand	1		1 38	
Section hands	5		1 42	
Slasher	1		1 67	
Slubber	1		1 20	
Slubbers	3		1 10	
Speeders		6		1 12
Speeders		12		95
Spinners, mule	8		1 80	
Spinners, mule	7		1 42	
Spinners, other	a7	a8	58	58
Spinners, other	b5	b8	26	26
Spoolers		18		60
Sweepers		54		33
Trimmers		2		75
Warper		1		95
Warpers		2		82
Watchmen	2		1 15	
Weavers	43		a1 17	
Weavers		97		d95

COTTON GOODS (SHEETING), DELAWARE.—ESTAB.
No. 194.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carder	1		\$3 50	
Card stripper	1		1 33	
Drawer	a1		66	
Dresser	1		2 33	
Fly-frame tenders	6		91	
Laborer	1		1 33	
Loom fixers	2		1 40	
Measurer	1		1 40	
Picker	1		1 20	
Pickers and doffers		b19		\$0 25
Repair hand	1		1 83	
Spinners, mule	1		2 50	
Spoolers		3		66
Twisters	a3		42	
Undesignated		2		66
Undesignated		b3		33
Weavers		36		76

COTTON GOODS (COLORED FAMILY CLOTH), DELA-
WARE.—ESTAB. No. 195.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beamers	11		\$1 47	
Carders	33		85	
Dyers	6		1 50	
Finishers	6		1 00	
Laborers	4		1 25	
Mechanics	5		1 85	
Spinners		a66		\$0 60
Weavers		117		84

COTTON GOODS (PRINT CLOTH), FRANCE.—ESTAB.
No. 196.

Time, 11 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Drawers	5		\$0 60	
Drawers' assistants	b5		20	
Engineer	1		1 20	
Fireman	1		80	
Oilier	1		80	
Overseers	4		1 00	
Sizers	2		1 06	
Sizers' assistants	2		62	
Undesignated	14		60	
Warpers	5		67	
Watchman	1		1 00	
Weavers		150		\$0 54
Winders	10		50	

COTTON GOODS (YARN), FRANCE.—ESTAB. No.
197.

Time, 12 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Adjuster	1		\$0 86	
Blowing-room hands	1	1	62	\$0 45
Carders	2		53	
Card grinders	1		86	
Card strippers	4		60	
Drawers	1	3	96	41
Engineer	1		96	
Fireman	1		67	
Jack-frame tenders		6		60
Laborers	2		56	
Oilier	1		62	
Overseer	1		96	
Piccers	7		53	
Piccers	a1		40	
Spinners, mule	7		96	
Winders	a7	a5	43	28

COTTON GOODS (DRILLING), GEORGIA.—ESTAB.
No. 198.

Time, 11½ hours per day; 310 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Back boys	b0		\$0 32	
Balers	2		85	
Beamer	a1		75	
Bolt maker	1		1 50	
Blacksmith	1		1 70	
Bobbin boys	a4		47	
Brush boys	a3		55	
Card grinders	4		1 05	
Card strippers	2		85	
Carpenters	7		1 25	
Cloth-room hand	1		85	
Doffers	b11		30	
Drawers		a11		\$0 48
Drawers-in		a10		55
Engineer	1		1 50	
Filling hands	a3		65	
Fireman	1		85	
Folders	2		70	
Fly-frame tenders		21		73
Laborers	2		85	
Laborers	a19		50	
Laborers	a3		33	
Machinists	2		1 70	

a Youth.

b Children.

c Estimated average wages. The agent's return gives 43 weavers (male), at 92 cents to \$1.07 per day.

d Estimated average wages. The agent's return gives 97 weavers (female), at 53 cents to \$1.20 per day.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (DRILLING), GEORGIA.—ESTAB.
No. 198—Concluded.

Time, 11½ hours per day; 310 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Mason	1		\$2 25	
Mixers	a3		75	
Oilers	5		80	
Oiler	b1		32	
Overseers	3		4 25	
Overseer	1		1 90	
Openers	a2		58	
Painter	1		1 00	
Pickers	a4		75	
Rovers	a3		75	
Second hand	1		1 70	
Second hand	1		1 50	
Second hand	1		1 25	
Section hands	10		1 15	
Slashers	2		1 25	
Spinners, mule	8		85	
Spinners, other	a6	a20	44	\$0 44
Spoolers		b24		30
Stampers	3		70	
Stitchers	a3		55	
Sweeper	a1		40	
Sweepers	b14		27	
Teamster	1		1 05	
Tinsmith	1		1 05	
Undesignated	4		85	
Undesignated	9		70	
Undesignated	3		50	
Undesignated		a13		40
Warpers	3		1 00	
Watchmen	4		85	
Weavers	48	110	85	75
Winders	8		75	

COTTON GOODS (DRILLING), GEORGIA.—ESTAB.
No. 199.

Time, 11½ hours per day; 310 days the past year.

Baler	1		\$0 75	
Bander	1		65	
Blacksmith	1		1 50	
Bobbin boy	1		50	
Card grinders	2		1 05	
Card strippers	a4		90	
Carpenters	2		42	
Doffers	a8		50	\$0 68
Drawers	a2	5	50	
Fireman	1		65	
Folder	1		75	
Fly-frame tenders	1	17		58
Laborer	1		85	
Laborers	a10		47	
Machinist	1		1 00	
Oiler	a1		65	
Oiler	a1		50	
Overseer	1		4 25	
Overseer	1		3 40	
Overseer	1		1 70	
Pickers	a4		50	
Railway hands	1		80	
Rover	a1		50	
Scrubber	a1		50	
Second hand	1		2 00	
Second hand	2		1 25	
Section hands	3		1 70	
Section hands	4		1 20	
Slasher	1		1 15	
Spinners	a13	a22	37	37
Spoolers		a7		48

a Youth.

b Children.

COTTON GOODS (DRILLING), GEORGIA.—ESTAB.
No. 199—Concluded.

Time, 11½ hours per day; 310 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Stamper	1		\$0 75	
Stitcher	1		75	
Sweeper	b1		25	
Undesignated	1		95	
Undesignated	2		65	
Undesignated	a4		50	
Undesignated	b1		25	
Warpers		2		\$0 65
Watchmen	2		80	
Weavers	23	48	87	82
Yarn carrier	a1		65	

COTTON GOODS (PRINT CLOTH, MOLESKIN), GER-
MANY.—ESTAB. No. 200.

Time, 12 hours per day; 303 days the past year.

Back tenders (tam- bours)	28		\$0 48	
Bleachers	18		54	
Bobbin winders	7	a30 24		\$0 25
Calenderers			52	
Carders	23		57	
Card grinders	8		32	
Card makers	5		60	
Carpenters	9		88	
Carpenters	8		67	
Chemists	2		67	
Cleaners and oilers	11		68	
Doffers		a47		27
Drivers	8		75	
Drivers	3		35	
Dyers	167		54	
Dyers	15		44	
Engineers and ma- chinists	37		70	
Firemen	27		73	
Floor hands	15		51	
Folders	24		42	
Foremen	9		1 16	
Foremen	20		70	
Gas makers	2		50	
Grocers	11		58	
Harness repairer	1		80	
Joiners	3		79	
Laborers	17		77	
Locksmiths	6		90	
Masons	30		82	
Masons	20		60	
Measurers	19		65	
Oilers	2		78	
Openers and prepar- ers	12		50	
Packers	7		58	
Pantographers	7		77	
Pickers	13		56	
Porters	2		51	
Preparers	29		42	
Printers	12		1 13	
Printer	1		75	
Rollers	63		40	
Rovers	4	a26	61	40
Rovers		a28		23
Scrubbers		3		48
Sizers	4		85	
Sizers	12		81	
Spare hands		a2		25
Speeders		17		39
Spinners, mule	26		98	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (PRINT CLOTH, MOLRAKIN), GERMANY.—ESTAB. No. 200—Concluded.

Time, 12 hours per day; 303 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Spinners, other.....	15		\$0 49	
Spinners, other.....	a24		25	
Steamers.....	9		\$0 54	
Tenters.....	10		51	
Timamiths.....	12		80	
Twisters.....		35		40
Undesignated.....	a225		35	
Varnishers.....	3		56	
Warehouse men.....	21		54	
Warpers.....		10		59
Washers.....		8		37
Watchmen.....	12		46	
Weavers.....	16		52	
Weavers.....		491		48
Weavers.....		576		45
White-room hands.....	5		61	
Winders.....	60	49	45	34

COTTON GOODS (PRINT CLOTH), GREAT BRITAIN.—ESTAB. No. 201.

Time, 10 hours per day; 300 days the past year.

Beamers.....	4		\$0 90	
Bobbin boys.....	a4		32	
Card clothiers.....	1		80	
Creelers.....		a3		\$0 45
Doffers.....	a7		37	
Drawers.....		3		64
Engineers.....	2		1 20	
Fireman.....	1		88	
Grinders and strip- pers, card.....	3		85	
Intermediates.....		2		82
Lappers.....		2		55
Machinist.....	1		1 35	
Machinist's helper.....	a1		32	
Oilier.....	1		84	
Overseers (over- lookers).....	3		1 52	
Overseers (over- lookers).....	5		1 44	
Rovers.....		9		66
Scutchers.....	3		63	
Slubbers.....		3		75
Spinners, mule.....	9		1 48	
Spinners, other.....		a27		40
Tenters.....		b29		22
Twisters.....	5		64	
Undesignated.....	2		1 40	
Warehouse men.....	5		72	
Weavers.....		152		90
Winders.....		19		54

COTTON GOODS (SHEETING), GREAT BRITAIN.—ESTAB. No. 202.

Time, 10 hours per day; — days the past year.

Bobbin tenders.....	2		\$0 64	
Card feeders.....	a2		54	
Card grinders.....	7		92	
Card grinders.....	2		88	
Cloth-room band.....	1		1 20	
Cloth-room hands.....	a7		60	

a Youth.

b Children.

COTTON GOODS (SHEETING), GREAT BRITAIN.—ESTAB. No. 203—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Doffers.....	a2		\$0 65	
Doubler.....		a1		\$0 41
Drawers.....		11		75
Drawers-in.....	3		1 27	
Drawer-in.....	1		86	
Engineers.....	2		1 48	
Foreman.....	1		1 80	
Foreman.....	2		1 17	
Foreman.....	1		1 08	
Foreman, assistant.....	3		94	
Laborers.....	13		87	
Lappers.....		3		52
Mixer.....	1		1 17	
Mixer.....	1		88	
Mixers.....	2		75	
Oilier.....	1		1 07	
Openers.....	2		60	
Rovers.....		17		67
Slubbers.....		10		70
Speeders.....		9		66
Spinners, mule.....	42		1 75	
Spinners, other.....		6		58
Sweepers.....		b4		13
Tapers.....	3		1 60	
Taper.....	1		1 40	
Twister.....	1		1 02	
Twisters.....	2	4	90	62
Warpers.....	8		74	
Warpers.....	3		58	
Watchman.....	1		88	
Winders.....		39		50

COTTON GOODS (YARN), GREAT BRITAIN.—ESTAB. No. 203.

Time, 10 hours per day; — days the past year.

Bobbin carrier.....	1		\$1 15	
Can tenders.....		3		\$0 58
Card clothier.....	1		1 28	
Carders.....	2		1 04	
Carders.....	6		92	
Carders.....	4		76	
Drawers.....		9		73
Engineer.....	1		1 80	
Fireman.....	1		96	
Laborer.....	1		1 15	
Laborer.....	1		80	
Lapper.....	1		96	
Lappers.....	1	4	72	64
Mixers.....	1	3	92	73
Mixers.....	2		73	
Oilier.....	1		1 00	
Overseer(overlooker).....	1		2 21	
Overseer(overlooker).....	1		2 00	
Overseer's assistant.....	1		1 70	
Packers.....	6		98	
Pleasers.....	36		1 08	
Rovers.....		20		68
Rovers.....		a16		42
Slubbers.....		9		72
Speeders.....		9		72
Spinners, mule.....	34		1 47	

c Weavers not reported.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, page 143 to 226.

COTTON GOODS (YARN), GREAT BRITAIN.—ESTAB. No. 204.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	10		\$0 72	
Drawers	9		65	
Engineer	1		2 00	
Fireman	1		96	
Lappers	3	1	90	\$0 64
Mixers	3		80	
Oiler	1		96	
Openers		3		64
Overseers	2		2 00	
Overseers' assistants	3		1 20	
Piecers	41		76	
Piecers, little	a41		47	
Rovers		27		63
Slubbers		10		61
Speeders		7		64
Speeders		a7		32
Spinners, mule	41		1 51	

COTTON GOODS (YARN), GREAT BRITAIN.—ESTAB. No. 205.

Time, 10 hours per day; — days the past year.

Carder	1		\$1 60	
Carder	1		1 20	
Card grinders and strippers	12		96	
Drawers		13		\$0 72
Lappers	4	2	88	68
Mixers	4		80	
Overseer (overlooker)	1		2 00	
Piecers	a28		68	
Piecers	a18		60	
Piecers	a28		52	
Piecers, little	a18		44	
Railway hands		a2		39
Rovers	26	13	80	63
Scutchers		5		64
Speeders		4		73
Speeders		a16		40
Spinners, mule	28		1 60	
Spinners, mule	18		1 44	
Slubbers		12		72

COTTON GOODS (YARN), ITALY.—ESTAB. No. 206.

Time, 12 hours per day; 292 days the past year.

Attendants		8		\$0 30
Belt lacers	2		\$0 48	
Belt lacers	a2		16	
Bobbin carriers		2		41
Box makers	6		62	
Carders	9		44	
Carders	23		35	
Card cleaners	12		44	
Card cleaners	3		39	
Card grinders	9		63	
Carpenters and blacksmiths	20		58	
Coal-carriers	2		44	
Cylinder maker	1		97	
Drawers		27		29
Drawers		a13		16
Elevator tenders	2		42	
Engineer	1		97	
Engineers	4		58	

a Youth.

COTTON GOODS (YARN), ITALY.—ESTAB. No. 206—Concluded.

Time, 12 hours per day; 292 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Firemen	7		\$0 58	
Firemen	2		39	
Jack-frame tenders		9		\$0 29
Jack-frame tenders		44		27
Jack-frame tenders		44		20
Laborers	18		48	
Laborers	25		44	
Laborers	9		39	
Loom fixer	1		48	
Masons	2		53	
Oilers	4		48	
Oilers	9		44	
Oilers' assistants	a4		24	
Openers	12		44	
Overseer (overlooker)	1		1 40	
Overseer (overlooker)	1		67	
Overseer (overlooker)	1		62	
Overseers (overlookers)	2		58	
Overseer (overlooker)	1		48	
Overseers (overlookers)		10		25
Piecers	112		34	
Reelers		290		24
Scutchers	6		44	
Spinners, mule	32		73	
Spinners, other		a44		16
Spoolers		a140		16
Sweepers		7		20
Sweepers		a4		16
Tester	1	1	48	25
Twisters	6	15	67	27
Twisters		64		24
Verifier	1		44	
Waste carriers	4		39	
Watchmen	2		48	
Weighter	1		39	
Weighters	a10		25	
Winders		40		24
Wrappers		5		27

COTTON GOODS (SWEETING), MAINE.—ESTAB. No. 207.

Time, 11 hours per day; — days the past year.

Apprentices, machinists	6		\$1 25	
Back boys	b24		35	
Baler	1		1 33	
Baler	1		90	
Band boys	b2		40	
Beamers	2		90	
Bell men	2		1 50	
Blacksmith	1		1 75	
Bobbin boys	a4		90	
Bobbin boys	b2		45	
Card grinders	4		1 50	
Card grinders	4		1 25	
Card strippers	a12		80	
Carpenters	5		2 00	
Carpenters	1		1 75	
Casting man	1		1 15	
Color mixer	1		1 50	
Doffers	a10	a14	50	\$0 55
Doffers		a28		42
Doubler boys	a2		70	
Drawers		15		85
Drawers		a3		65
Drawers		a8		60

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (SHEETING), MAINE.—ESTAB. No. 207.—Concluded.

Time, 11 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Drawers-in.....		3	\$1 82	
Drawers-in.....		3	90	
Dyer.....	1		\$1 80	
Elevator tenders.....	4		1 00	
Finishers.....	2		1 10	
Finishers.....	a2		90	
Folder.....	1		1 10	
Fly-frame tenders.....		34		1 00
Gas maker.....	1		1 50	
Harness repairers.....	1	2	2 50	
Inspectors.....		11		75
Laborers.....	10		1 40	
Machinists.....	11		1 75	
Mason.....	1		1 75	
Oilers.....	4		1 37	
Oilers.....	5		1 00	
Oilers.....	a4		80	
Oilers.....	a2		60	
Openers.....	2		90	
Packer.....	1		1 00	
Painters.....	3		1 60	
Pattern maker.....	1		1 75	
Pickers.....	a15		85	
Piper.....	1		1 75	
Railway hands.....		a2		70
Reeler.....	a1		72	
Rovers.....	a8	11	65	1 20
Rovers.....	a2		45	
Scrubbers.....		6		50
Scrubbers.....		5		40
Second hand.....	1		2 25	
Second hands.....	8		1 75	
Second hands.....	3		1 60	
Second hands.....	4		1 33	
Section hands.....	11		1 75	
Section hands.....	16		1 50	
Section hands.....	11		1 00	
Sewing-machine operators.....		6		1 00
Shafting man.....	1		1 10	
Sizer.....	a1		85	
Slashers.....	4		1 40	
Slubbers.....		12		1 00
Spare hand.....	1		1 25	
Spare hand.....	1		90	
Spare hands.....	a2		65	
Spare hands.....	a2		40	
Speeders.....		9		98
Spinners, mule.....	28		1 44	
Spinners, other.....		25		75
Spinners, other.....		a72		50
Spoolers.....		54		70
Spool carrier.....	a1		42	
Stamper.....	1		1 10	
Sweepers.....	a12		40	
Teamsters.....	2		1 50	
Trimmers.....	a4		80	
Twisters.....	a5		85	
Undesignated.....	2		1 75	
Undesignated.....	1		1 15	
Undesignated.....	1		90	
Undesignated.....	a4		55	
Undesignated.....	a10		50	
Warpers.....	5	6	99	
Waste hand.....	1		1 25	
Waste hand.....	1		90	
Waste hands.....	a2	a1	50	50
Watchmen.....	5		1 35	
Weavers.....	34	50	1 16	1 11
Weavers.....	60	60	1 06	1 06
Weavers.....	45	32	1 00	1 00
Winders.....	2		72	

a Youth.

COTTON GOODS (SHEETING, SHIRTING, ETC.), MAINE.—ESTAB. No. 208.

Time, 11 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Back boys.....	a44		\$0 40	
Blacksmiths.....	2		1 79	
Blacksmith's helper.....	1		1 30	
Bobbin boy.....	a1		42	
Brush boys.....	a3		87	
Carpenter.....	1		2 25	
Carpenters.....	7		1 08	
Card clothiers.....	3		91	
Card ginders.....	12		1 33	
Card strippers.....	30		85	
Cleaners.....	b10		30	
Cloth-room hands.....	2		1 00	
Cloth-room hands.....	2		95	
Doffers.....	a2		72	
Doffers.....	a2		63	
Doffers.....	a2		48	
Doffers.....	b36		48	
Doubleers.....	a2	b4	80	\$0 40
Drawers.....	4	36	82	90
Elevator tenders.....	4		1 05	
Filling hands.....	a3		80	
Firemen.....	2		1 15	
Foremen.....	2		2 75	
Harness repairers.....	5		1 00	
Inspector.....		1		1 00
Inspectors.....		32		68
Laborers.....	2		1 55	
Laborers.....	a2		1 05	
Lappers.....	a3		75	
Machinist.....	1		2 25	
Machinists.....	9		1 87	
Machinists' apprentices.....	2		90	
Oilers.....	15		90	
Oilers.....	b6		30	
Overseers.....	5		4 50	
Overseers.....	5		3 00	
Painters.....	8		1 77	
Pickers.....	2		1 25	
Pickers.....	11		85	
Pickers-in.....		5		65
Piper.....	1		1 58	
Pressmen.....	8		1 08	
Rovers.....	a2		80	
Rovers.....	a5		50	
Rovers.....	b12		35	
Scrubbers.....	3	4	70	85
Scrubber.....	a1		55	
Second hand.....	1		2 16	
Second hands.....	2		1 90	
Second hand.....	1		1 37	
Section hands.....	24		1 60	
Section hands.....	11		1 32	
Slashers.....	5		1 56	
Slashers' helpers.....	a2		75	
Slubbers & speeders.....	13		1 00	
Spinners, mule.....	28		1 50	
Spinners, other.....		31		85
Spinners, other.....		a98		50
Spinners, other.....		44		62
Spoolers.....	3		70	
Stamper.....	3		1 08	
Sweepers.....	b1	a6	95	46
Sweepers.....	b6		95	
Teamsters.....	2		1 12	
Undesignated.....	2		75	
Undesignated.....	b1		40	
Warpers.....		10		87
Watchman.....	4		1 25	
Weavers.....	117	225	90	90
Wigher.....	1		1 37	
Winders.....	a2		58	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (GINGHAM), MAINE.—ESTAB. NO. 209.

Time, 11 hours per day; 308 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Male.
Back boys.....	a11		\$0 85	
Balers.....	50		47	
Band boy.....	51		60	
Beamers.....	17		3 24	
Beamers.....	3	5	1 48	\$1 48
Belt maker.....	1		2 50	
Blacksmith.....	1		2 18	
Blacksmith's helper.....	1		1 10	
Bobbin boys.....	57		62	
Bobbin boys.....	53		90	
Bob cutter.....	1		1 28	
Card clothier.....	1		1 58	
Card fixer.....	1		1 09	
Card fixer.....	51		80	
Card grinders.....	8		1 37	
Card strippers.....	b15		80	
Calenderer.....	1		1 19	
Carpenters.....	7		1 80	
Cleaners.....	a10		45	
Cleaners.....	a11		33	
Cloth room hand.....		1		83
Cloth room hand.....		1		95
Cloth room hands.....		2		75
Doffer.....	51		80	
Doffers.....	53		73	
Doffer.....	51	b29	54	45
Doffers.....	a9	a2	39	36
Double boys.....	54		62	
Drawers.....	58	58	42	55
Dressers.....	7		91	
Dyers.....	25		1 30	
Dyers.....	11		90	
Elevator tender.....	1		1 05	
Filling hand.....	1		1 53	
Filling hands.....	2		95	
Filling hands.....	b10		70	
Finisher.....	1		1 04	
Firemen.....	2		1 61	
Folders.....	2		1 58	
Gas maker.....	1		1 36	
Gate tender.....	1		75	
Harness repairer.....		1		73
Inspectors.....		10		90
Laborers.....	2		1 58	
Laborers.....	18		1 35	
Laborers.....	13		1 05	
Laborers.....	50		90	
Machinist.....	1		2 03	
Mason.....	1		1 13	
Other.....	1		1 05	
Other.....	7		95	
Other.....	b1		64	
Overseer.....	1		6 44	
Overseer.....	1		4 75	
Overseers.....	4		3 15	
Overseer.....	1		2 75	
Overseer.....	1		2 37	
Overseer.....	1		2 00	
Painter.....	1		2 08	
Painter.....	1		1 58	
Pattern maker.....	1		2 03	
Picker.....	1		1 58	
Picker.....	1		1 19	
Pickers.....	12		80	
Piper.....	1		2 03	
Piper's helper.....	1		1 80	
Presser.....	1		1 58	
Quillers.....	b23		67	
Railway hands.....	b2		64	
Railway hands.....	b2		52	
Reelers.....	5		2 21	

a Children.

COTTON GOODS (GINGHAM), MAINE.—ESTAB. NO. 209.—Concluded.

Time, 11 hours per day; 308 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Male.
Roovers.....	54		\$0 48	
Scrubbers.....	53	b15	44	\$0 44
Second hand.....	1		2 75	
Second hands.....	2	57	2 10	95
Second hands.....	13		1 92	
Second hands.....	3		1 45	
Section hands.....	17		1 80	
Section hands.....	10		1 63	
Sewing-machine op- erators.....	1		1 19	
Shearer.....	1		1 58	
Slasher.....	1		1 58	
Slashers.....	8		1 40	
Slasher's helper.....	1		85	
Slubbers.....		2		97
Slubbers.....		2		57
Slubbers.....		3		80
Slubbers.....	b2		45	
Spare hands.....	1	2	1 16	1 16
Spare hands.....	b21		80	
Spare hands.....	51		53	
Spare hands.....	a3		67	
Spinners, mule.....	7		1 60	
Spinner, mule.....	1		1 50	
Spinners, other.....	58	16	73	73
Spoolers.....		9		84
Spoolers.....		25		71
Sweeper.....	b31		60	
Sweepers.....	a23		30	
Teamsters.....	4		1 18	
Ticketers.....	1		2 50	
Ticketers.....	b2	1	81	99
Tool maker.....	1		1 80	
Twisters.....	2		1 50	
Twister.....		1		1 70
Twisters.....	1	1	1 25	1 42
Warper.....	1		1 08	
Warpers.....	8		1 13	
Waste hand.....	1		1 12	
Waste hand.....		51		44
Watchmen.....	6		1 36	
Weavers.....	385	73	1 18	1 88
Weavers.....	90	25	1 11	1 20
Weavers.....		103		1 17
Winders.....	52		1 15	
Yarn sorter.....	1		95	

COTTON GOODS (SHEETING, DRILLING), MARY-
LAND.—ESTAB. NO. 210.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Male.
Beamers.....	2		\$1 25	
Bobbin boys.....	b6		40	
Carders.....	3		80	
Card grinders.....	4		1 50	
Doffers.....	54		50	
Doffers.....	a5	a10	30	\$0 30
Drawers.....		5		75
Engineer.....	1		1 50	
Filling hands.....	54		50	
Laborers.....	6		1 25	
Loom fixers.....	6		1 25	
Overseers.....	3		2 25	
Packers.....	6		1 25	
Pickers.....	6		1 10	
Railway hands.....	54		60	
Repair hands.....	6		1 75	

b Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (SHEETING, DRILLING), MARYLAND.—ESTAB. No. 210.—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Rover	a1	.....	\$0 75	.....
Second hands	3	.....	1 75	.....
Slubbers .....	.....	6	.....	\$0 75
Speeders .....	.....	8	.....	75
Speeders	a2	.....	60	.....
Spinners .....	.....	40	.....	67
Spoolers .....	.....	12	.....	75
Sweepers	b6	.....	28	.....
Twisters	a7	.....	50	.....
Undesignated	b4	.....	35	.....
Undesignated .....	.....	b15	.....	35
Warpers	15	.....	1 30	.....
Weavers .....	.....	85	.....	80

COTTON GOODS (SHEETING, DRILLING), MARYLAND.—ESTAB. No. 211.

Time, 11 hours per day; — days the past year.

Blacksmith	1	.....	\$1 50	.....
Cawders	15	15	70	\$0 70
Carpenter	1	.....	1 60	.....
Dressers .....	.....	16	.....	80
Engineer	1	.....	1 75	.....
Folder	a1	.....	1 00	.....
Loom fixers	2	.....	1 75	.....
Machinist	1	.....	2 13	.....
Overseers	8	.....	2 25	.....
Packer	1	.....	2 25	.....
Packers	a2	.....	60	.....
Spinners .....	.....	55	.....	70
Watchman	1	.....	1 50	.....
Watchman	1	.....	1 25	.....
Weavers .....	.....	60	.....	84

COTTON GOODS (DUCK), MARYLAND.—ESTAB. No. 212.

Time, 11 hours per day; 300 days the past year.

Carders	18	17	\$0 70	\$0 70
Card boys	a9	.....	45	.....
Dressers	3	12	80	80
Engineer	1	.....	1 75	.....
Fireman	1	.....	1 25	.....
Laborers	19	.....	1 00	.....
Packers	6	.....	1 50	.....
Repair hands	5	.....	1 65	.....
Spinners .....	.....	41	.....	70
Spinners	a12	a20	45	45
Undesignated	a2	.....	45	.....
Watchmen	2	.....	1 25	.....
Weavers	14	48	84	84

COTTON GOODS (DUCK), MARYLAND.—ESTAB. No. 213.

Time, 11 hours per day; 305 days the past year.

Beamers	12	.....	\$0 71	.....
Card boys	a11	.....	66	.....
Card grinders	6	.....	1 54	.....
Doffers	b12	b23	42	\$0 40
Drawers .....	.....	8	.....	71
Filling hands	b19	.....	45	.....
Loom fixers	6	.....	1 75	.....

a Youth.

COTTON GOODS (DUCK), MARYLAND.—ESTAB. No. 213.—Concluded.

Time, 10 hours per day; 208 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Oilers	a10	.....	\$0 50	.....
Overseers	6	.....	2 25	.....
Overseers	3	.....	1 75	.....
Packers	7	.....	1 47	.....
Pickers	11	.....	1 27	.....
Railway hands	a2	.....	77	.....
Slubbers .....	.....	12	.....	\$0 79
Spare hands	a9	.....	54	.....
Speeders .....	.....	26	.....	84
Spinners .....	.....	26	.....	79
Spoolers .....	.....	6	.....	79
Spoolers .....	.....	38	.....	75
Sweepers	b5	b6	35	30
Twisters	a4	28	75	85
Undesignated	13	.....	2 10	.....
Undesignated	12	.....	1 84	.....
Undesignated	a6	a14	64	42
Weavers .....	.....	86	.....	22

COTTON GOODS (SHEETING), MASSACHUSETTS.—ESTAB. No. 214.

Time, 10 hours per day; 308 days the past year.

Back boys	a35	.....	\$0 52	.....
Belt maker	1	.....	2 12	.....
Brush boys	a8	.....	45	.....
Card clothier	1	.....	1 90	.....
Card grinders	15	.....	1 34	.....
Card strippers	20	.....	81	.....
Cleaners .....	.....	a12	.....	\$0 40
Cloth-room hands	11	.....	1 29	.....
Doffers	a26	.....	50	.....
Drawers .....	.....	12	.....	61
Drawers in .....	.....	19	.....	80
Elevator tenders	2	.....	1 20	.....
Filling hands	11	.....	1 14	.....
Foremen	2	.....	1 47	.....
Laborers	8	.....	1 00	.....
Lappers	2	.....	1 18	.....
Oilier	1	.....	1 20	.....
Oilers	4	.....	1 08	.....
Overseers	5	.....	4 80	.....
Pickers	2	.....	89	.....
Railway hands .....	.....	a7	.....	50
Repair hands	27	.....	1 75	.....
Rovers	a6	.....	78	.....
Rovers	a5	.....	66	.....
Scrubbers .....	.....	16	.....	55
Second hands	13	.....	1 56	.....
Section hands	2	.....	1 70	.....
Section hands	25	.....	1 45	.....
Section hands	8	.....	1 06	.....
Sizer	1	.....	1 20	.....
Slashers	6	.....	1 35	.....
Slashers	2	.....	1 06	.....
Slubbers .....	.....	18	.....	80
Spare hands .....	.....	7	.....	1 01
Speeders .....	.....	39	.....	84
Spinners, mule	33	.....	1 27	.....
Spinners, other .....	.....	58	.....	67
Spoolers	3	62	86	73
Tie-overs	4	.....	57	.....
Undesignated .....	.....	16	.....	86
Warpers .....	.....	8	.....	83
Watchmen .....	.....	6	1 50	.....
Weavers .....	.....	323	.....	83

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (SHEETING), MASSACHUSETTS.—
ESTAB. No. 215.

Time, 10 hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card grinders	4		\$1 00	
Card strippers	6		75	
Carpenters	5		1 25	
Doffers	a10		60	
Drawers-in		16		\$0 67
Dressers	2		1 75	
Engineers	3		1 17	
Firemen	4		1 00	
Laborers	20		92	
Machinists	10		1 25	
Overseers	4		3 00	
Painters	4		1 25	
Rovers	a25		40	
Second hands	4		1 25	
Slubbers		5		84
Speeders		27		67
Spinners, mule	20		1 00	
Spinners, other	a50	a44	43	43
Spoolers		b34	42	
Trimmers		4	67	
Warpers		5	72	
Weavers	13	49	1 42	1 17
Weavers	44	4	1 17	a2
Weavers	14		92	
Watchmen	6		1 00	

COTTON GOODS (SHEETING), MASSACHUSETTS.—
ESTAB. No. 216.

Time, 10 hours per day; 305 days the past year.

Back boys	b8		\$0 38	
Card boys	b2		38	
Card grinders	2		1 25	
Card strippers	2		1 00	
Carpenters	5		1 67	
Doffers	a8	b2	70	\$0 38
Drawers-in		6		83
Engineer	1		1 59	
Laborers	14		1 25	
Laborers	2		90	
Laborers	4		83	
Loom fixers	4		1 50	
Machinists	3		1 50	
Masons	2		1 50	
Overseer	1		3 00	
Overseers	3		2 75	
Overseer	1		1 50	
Painters	3		1 25	
Pickers	2		1 00	
Railway hands	a3		63	
Second hand	1		1 50	
Second hand	1		1 29	
Second hands	2		95	
Slabber	1		1 50	
Spare hands		6		1 00
Speeders	2	16	95	95
Spinners, mule	7		1 42	
Spinners, other	b3	b8	48	48
Spinners, other	a4	a2	69	69
Spoolers		9	66	
Sweeper		b1		38
Sweepers	b2		29	
Undesignated	a6		42	
Warpers		2		82
Warper		1		74
Watchmen	1		1 59	
Weavers	3		1 59	
Weavers	11	1	1 46	1 46
Weavers	29	24	1 25	1 25
Weavers	1	4	1 04	1 04
Weavers	4	4	84	84

a Youth.

COTTON GOODS (SHEETING), MASSACHUSETTS.—
ESTAB. No. 217.

Time, 10 hours per day; 301 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$1 50	
Card grinders	2		1 00	
Card strippers	3		1 00	
Carpenter	1		2 50	
Carpenters	1		1 50	
Carpenters	2		1 29	
Doffers	a5	a2	59	\$0 50
Drawers	a7		60	
Engineer	1		2 77	
Fireman	1		1 50	
Laborers	12		1 25	
Laborers	4		1 00	
Loom fixers	4		1 75	
Machinist	1		2 50	
Machinists	2		1 50	
Overseers	3		3 00	
Rovers	a7		60	
Second hand	1		1 58	
Second hands	2		1 50	
Section hands	6		75	
Speeders		13		1 00
Spinners, mule	10		1 25	
Spinners, other		26		70
Warpers	2		1 00	
Watchman	1		1 63	
Weavers	4		1 39	
Weavers	16	2	1 21	1 20
Weavers	31	18	1 06	1 06
Weavers	1	1	87	87
Weavers	8	7	69	69

COTTON GOODS (SHEETING), MASSACHUSETTS.—
ESTAB. No. 218.

Time, 10 hours per day; 307 days the past year.

Card grinders	4		\$0 90	
Card strippers	2	3	1 17	\$0 75
Carpenters	5		1 50	
Doffers	a9		45	
Engineer	1		2 00	
Fireman	1		1 84	
Laborers	9		80	
Loom fixers	5		1 08	
Overseers	2		3 25	
Overseers	2		3 00	
Painters	2		1 25	
Second hands	5		1 59	
Spare hands	6		82	
Speeders		14		92
Spinners, mule	6		1 29	
Spinners, other	a21	a30	59	59
Weavers	10	12	1 54	1 50
Weavers	25	10	1 34	1 25
Weavers	13	18	1 17	1 08

COTTON GOODS (PRINT CLOTH), MASSACHUSETTS.—
ESTAB. No. 219.

Time, 10 hours per day; 308 days the past year.

Back boys	a23		\$0 44	
Band boys	a3		67	
Beam fixer	1		1 30	
Card boys	a2		75	
Card boys	a7		40	
Card grinders	7		1 42	
Card strippers	7		95	
Chainers	a1		60	
Cleaners	a2	a3	75	\$0 45
Doffers	a6	a25	89	73
Drawers		9		1 17

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (PRINT CLOTH), MASSACHUSETTS.—
ESTAB. No. 219—Concluded.

Time, 10 hours per day; 308 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Drawers	1	a3	\$0 65	
Filling hands	2		\$1 25	
Folders	2		82	
Harness brusher	1		75	
Harness repairs	1	4		83
Inspectors	1	4	1 00	1 00
Laborers	4		1 18	
Laborer	1		95	
Lapper	1		95	
Machinist	1		2 15	
Other	1		1 25	
Others	6		1 00	
Other	1		80	
Others	a3		60	
Overseers	3		6 00	
Overseer	1		6 00	
Overseer	1		2 50	
Overseer	1		1 45	
Pickers	6		1 05	
Quillers	2		80	
Railway hands	a3		65	
Reed fixer	1		1 25	
Repair hand	1		1 85	
Repair hand	1		1 50	
Rovers	a2		70	
Rovers	a3		50	
Scrubbers	a1	a1	75	75
Scrubbers	1	a2		70
Second hand	1		4 00	
Second hand	1		2 65	
Second hand	1		2 48	
Second hands	3		2 00	
Section hands	6		2 20	
Section hands	23		1 91	
Section hands	1	4	1 60	1 16
Section hands	3		1 45	
Shafter	1		1 45	
Slashers	6		1 05	
Slashers' helpers	2		1 20	
Slubber	1		1 21	
Speeders		8		91
Spinners, mule	27		1 51	
Spinners, other		18		1 00
Spinners, other		41		83
Spoolers		42		80
Sweepers and scrubbers	a3		47	
Sweepers	a4		70	
Teamsters	4		1 10	
Trimmer		1		85
Twister	1		1 80	
Twisters	1	3	1 24	78
Undesignated	a2		70	
Warpers	2	8	1 13	1 13
Warpers	5		85	
Waste hand	1		1 08	
Weavers	3	1 23	1 08	1 09
Weavers		99		1 00
Weavers		1 59		91
Weavers	a13	8	70	85
Weigher	1		1 10	

COTTON GOODS (PRINT CLOTH), MASSACHUSETTS.—
ESTAB. No. 220.

Time, 10 hours per day; — days the past year.

Carders	21	a50	\$1 17	\$0 75
Cloth-room hands	1	7	1 67	79
Drawers and dressers	9	8	1 33	32

a Youth.

COTTON GOODS (PRINT CLOTH), MASSACHUSETTS.—
ESTAB. No. 220—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Overseers	15		\$1 25	
Scrubbers		2		\$0 62
Spinners, mule	60		95	
Spinners, other	a16	15	48	75
Spoolers and warpers	20	a33		79
Undesignated	20		1 81	
Weavers	66	97	93	95

COTTON GOODS (PRINT CLOTH), MASSACHUSETTS.—
ESTAB. No. 221.

Time, 10 hours per day; — days the past year.

Back boys	a46		\$0 35	
Band boy	a1		35	
Bobbin boy	a1		73	
Card grinders	3		1 25	
Card strippers	9	3	95	\$0 95
Cleaners	15		35	
Doffers	a18		60	
Doffers		a11		59
Doublers		2		87
Drawers		17		75
Drawers	a6	2	75	75
Elevator tender	1		1 09	
Elevator tenders	2		53	
Filling hands	a3		75	
Fly-frame tenders	7	18	1 07	1 00
Other	1		1 25	
Others	3		80	
Overseers	3		3 25	
Overseers	4		1 75	
Pickers	5		85	
Rovers	a1		80	
Scrubbers		5		88
Scrubbers	3	3		55
Second hands	3		1 65	
Second hands	6		1 09	
Second hands	2		1 59	
Second hands	2		1 45	
Section hands	13		1 50	
Section hands	2		1 03	
Sizer	1		85	
Slashers	6		1 45	1 12
Slubbers		8		
Spare hands	2		1 13	
Speeders		17		87
Spinners, mule	42		1 65	
Spinners, other	24		65	80
Spinners, other	a7		75	45
Spoolers	30		79	
Spoolers	23		55	23
Sweepers		84		
Tubers	a10		23	
Undesignated		6		75
Warpers	6	4	1 13	1 00
Weavers		3 50		95
Yarn hand	1		95	

COTTON GOODS (CALICO), MASSACHUSETTS.—
ESTAB. No. 222.

Time, 10 hours per day; 266 days the past year.

Back tenders	a11		\$1 20	
Back tenders	a7		1 02	
Back tenders	a5		73	
Back tenders	a8		45	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (CALICO), MASSACHUSETTS.—ESTAB.
No. 222—Continued.

Time, 10 hours per day; 266 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Back boys.....	a25		\$0 37	
Beaters.....		8		\$1 00
Belt fixers.....	3		1 71	
Blacksmiths.....	2		2 96	
Blacksmith.....	1		2 00	
Bleachers.....	5		1 00	
Bleachers.....	28		63	
Bobbin boys.....	24		75	
Card grinders.....	16		1 25	
Carpenters.....	2		1 96	
Carpenters.....	14		1 54	
Color mixer.....	1		3 00	
Color hands.....	16		1 05	
Doffers.....	b11	b70	60	60
Drawers.....	b12	b18	52	52
Dyers.....	7		1 25	
Dyers.....	16		1 17	
Dyers.....	20		1 00	
Dyers.....	b10		52	
Engineer.....	1		3 75	
Engineers.....	2		1 90	
Engravers.....	8		4 00	
Filing hands.....	7		92	
Fireman.....	1		1 65	
Firemen.....	11		1 33	
Folders.....	2		90	
Folders.....	22		62	
Folders and packers.....	7		1 65	
Folders and packers.....	7		1 25	
Folders and packers.....	26		1 00	
Harness brushers.....		13		63
Inspectors.....		7		68
Laborers.....	10		1 25	
Laborers.....	20		95	
Machinists.....	10		1 57	
Machinists.....	7		1 47	
Machinists.....	6		1 87	
Machinists' helpers.....	b7		1 08	
Machinists' helpers.....	b2		82	
Mason.....	1		2 17	
Mason's helper.....	1		1 15	
Nappers.....	6		1 05	
Overseer.....	1		5 50	
Overseer.....	1		5 33	
Overseers.....	7		3 75	
Overseer.....	1		3 50	
Overseers.....	2		3 33	
Overseers.....	8		3 00	
Others.....	53		50	
Others.....	b15		60	
Packers.....	b2		72	
Painter.....	1		2 00	
Painters.....	7		1 42	
Pantographers.....	1	8	1 47	1 00
Printers.....	8		4 33	
Printer.....	1		1 90	
Reelers.....		2		75
Revers.....	b2		80	
Scrubbers.....		10		60
Second hands.....	2		2 00	
Second hands.....	12		1 80	
Second hands.....	3		1 80	
Second hands.....	17		1 50	
Section hands.....	21		1 45	
Section hands.....	6		1 80	
Section hands.....	14		1 10	
Selectors and stamp- ers.....	4		1 20	
Shearers.....	b6		54	
Sketch makers.....	3		5 00	
Sketch maker.....	1		2 50	

a Children.

COTTON GOODS (CALICO), MASSACHUSETTS.—ESTAB.
No. 223—Concluded.

Time, 10 hours per day; 266 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Slashers.....	11		\$1 35	
Slashers' helpers.....	10		1 05	
Spare hands.....	b14		60	
Speeders.....		32		\$0 68
Spinners, mule.....	18		1 37	
Spinners, other.....		125		71
Spoolers.....		67		71
Steamer and starch- ers.....	1		2 00	
Steamers and starch- ers.....	3		1 27	
Steamers and starch- ers.....	23		1 00	
Steamers and starch- ers.....	b7		75	
Steamers and starch- ers.....	b38		50	
Sweepers.....		13		60
Teamsters.....	4		1 10	
Ticketers.....		12		72
Undesignated.....	6		72	83
Warpers.....		12		79
Watchmen.....	14		1 46	
Weavers.....	8	31	1 20	1 02
Weavers.....		70		96
Weavers.....		72		89
Weavers.....	3	300	74	81
Weavers.....		20		66
Weavers.....		17		52

COTTON GOODS (CHECK), MASSACHUSETTS.—ESTAB.
No. 223.

Time, 10 hours per day; 308 days the past year.

Carders.....	15	36	\$1 01	\$0 75
Cloth-room hands.....	4	4	1 41	70
Drawers-in.....	1	14	75	83
Spinners, mule.....	36		1 03	
Spinners, other.....	b22	b18	57	53
Spoolers and warp- ers.....	6	24	1 18	75
Weavers.....	70	108	1 16	1 21

COTTON GOODS (THREAD), MASSACHUSETTS.—
ESTAB. No. 224.

Time, 10 hours per day; — days the past year.

Beamer.....	b1		\$0 90	
Boiler tenders.....	2		2 42	
Boiler tender.....	1		1 50	
Carder.....	1		1 50	
Carders.....	50		1 37	
Doffers.....	b17	b10	45	\$0 45
Drawers.....		60		1 00
Drawers.....		5		67
Dressers.....	3		2 00	
Dyers and bleachers.....	10		1 60	
Engineer.....	1		3 00	
Grinders.....	9		1 37	
Laborers.....	4		1 50	
Laborers.....	15		1 28	
Packers and meas- urers.....		b5		54
Painter.....	1		2 50	
Painter.....	1		1 75	
Piecers.....	5		77	
Picker.....	1		1 50	
Pickers.....	5		1 00	

b Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (THREAD), MASSACHUSETTS.—
ESTAB. No. 224—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Repair hands.....	16	.....	\$2 50	.....
Scrubbers and sweepers.....	.....	20	.....	\$0 60
Second hands.....	12	.....	2 25	.....
Section hands.....	13	.....	1 16	.....
Spinners, mule.....	15	.....	1 40	.....
Spinners, other.....	.....	82	.....	95
Spoolers.....	.....	11	.....	1 00
Spoolers.....	.....	26	.....	75
Spoolers.....	.....	49	.....	54
Spool turners.....	4	.....	2 25	.....
Teamsters.....	2	.....	1 50	.....
Third hands.....	5	.....	1 50	.....
Ticket cutters.....	2	.....	1 25	.....
Ticketers.....	.....	1	.....	60
Twisters.....	.....	7	.....	1 05
Twisters.....	.....	47	.....	90
Warpers.....	.....	4	.....	1 50
Watchmen.....	3	.....	1 50	.....
Weavers.....	.....	28	.....	1 10
Winders.....	.....	25	.....	1 25
Winders.....	.....	8	.....	1 15

COTTON GOODS (THREAD), MASSACHUSETTS.—
ESTAB. No. 225.

Time, 10 hours per day; — days the past year.

Dressers.....	4	.....	\$1 88	.....
Engineer.....	1	.....	2 00	.....
Inspector.....	1	.....	1 00	.....
Machinist.....	1	.....	1 25	.....
Overseer.....	1	.....	3 00	.....
Overseers.....	2	.....	2 50	.....
Overseer.....	1	.....	1 25	.....
Packer.....	a1	.....	75	.....
Spoolers.....	.....	10	.....	\$1 00
Undesignated.....	a1	a5	75	50
Winders.....	.....	16	.....	1 00
Wrapper.....	1	.....	1 00	.....

COTTON GOODS (SHEETING), NEW HAMPSHIRE.—
ESTAB. No. 226.

Time, 10½ hours per day; 309 days the past year.

Bleachers.....	5	.....	\$1 50	.....
Carders.....	47	117	96	\$0 87
Cloth-room hands.....	35	89	1 73	1 08
Dressers.....	25	93	96	83
Harness repairers.....	5	.....	82	.....
Laborers.....	30	.....	1 30	.....
Spinners.....	a95	118	95	72
Spinners.....	a102	a185	69	69
Spoolers.....	.....	53	.....	75
Twisters.....	.....	a53	.....	66
Weavers.....	127	52	86	93
Weavers.....	.....	158	.....	87

COTTON GOODS (PRINT CLOTH), NEW HAMPSHIRE.—
ESTAB. No. 227.

Time, 10½ hours per day; 308 days the past year.

Band boys.....	a2	.....	\$0 57	.....
Band boys.....	b2	.....	40	.....
Back boys.....	b29	.....	39	.....
Card boys.....	a4	.....	50	.....
Card clothier.....	1	.....	1 50	.....
Card grinders.....	13	.....	1 37	.....
Card strippers.....	11	.....	96	.....

COTTON GOODS (PRINT CLOTH), NEW HAMPSHIRE.—
ESTAB. No. 227—Concluded.

Time, 10½ hours per day; 308 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Dofters.....	a9	.....	\$0 80	.....
Dofters.....	a3	a8	65	\$0 75
Dofters.....	a2	a21	50	50
Drawers.....	1	4	1 17	1 00
Drawers.....	a3	6	62	62
Elevator tenders.....	2	.....	1 00	.....
Elevator tenders.....	a2	.....	75	.....
Elevator tenders.....	a2	.....	50	.....
Filling hand.....	a1	.....	42	.....
Fly-frame tenders.....	.....	40	.....	1 16
Fly-frame tenders.....	.....	2	.....	1 00
Inspectors.....	1	.....	83	.....
Intermediates.....	.....	5	.....	87
Intermediates.....	.....	6	.....	70
Laborer.....	1	.....	83	.....
Laborer.....	a1	.....	67	.....
Lappers.....	3	.....	96	.....
Lapper.....	1	.....	65	.....
Ollers.....	5	.....	1 00	.....
Ollers.....	3	.....	85	.....
Overseers.....	15	.....	4 00	.....
Overseers.....	2	.....	3 00	.....
Pickers.....	2	.....	1 12	.....
Pickers.....	4	.....	96	.....
Pickers.....	7	.....	87	.....
Railway hand.....	a1	.....	62	.....
Rovers.....	6	2	96	96
Rovers.....	4	.....	80	.....
Rovers.....	4	.....	75	.....
Scrubbers.....	.....	4	.....	1 00
Scrubbers.....	.....	a16	.....	45
Second hands.....	14	.....	2 00	.....
Second hands.....	2	.....	1 75	.....
Second hands.....	4	.....	1 50	.....
Section hand.....	1	.....	2 00	.....
Section hands.....	10	.....	1 50	.....
Section hands.....	2	.....	1 15	.....
Slashers.....	7	.....	1 00	.....
Slubbers.....	2	3	96	87
Spare hand.....	1	.....	1 25	.....
Spare hands.....	5	1	1 00	96
Spare hand.....	1	.....	87	.....
Speeders.....	8	.....	1 00	.....
Spinners, mule.....	16	.....	1 62	.....
Spinners, mule.....	16	.....	1 25	.....
Spinners, other.....	.....	30	.....	92
Spinners, other.....	a12	36	70	72
Spoolers.....	.....	20	.....	67
Spoolers.....	.....	43	.....	54
Sweepers.....	a2	.....	50	.....
Sweepers.....	.....	a7	.....	45
Undesignated.....	2	.....	1 06	.....
Undesignated.....	6	10	91	71
Undesignated.....	1	.....	83	.....
Warpers.....	.....	10	.....	1 17
Warpers.....	.....	3	.....	87
Waste hands.....	a4	a8	45	45
Weavers.....	.....	413	.....	95
Weavers.....	47	83	98	91
Yarn carrier.....	.....	1	.....	50

COTTON GOODS (CALICO), NEW HAMPSHIRE.—
ESTAB. No. 228.

Time, 10½ hours per day; 309 days the past year.

Carders.....	.....	76	.....	\$0 94
Overseers.....	19	.....	\$4 39	.....
Second hands.....	31	.....	2 12	.....
Spinners.....	a45	143	62	74
Weavers.....	67	794	1 55	1 05

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (SHEETING), NEW JERSEY.—ESTAB. No. 229.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Drawers		8		\$0 70
Dressers	2		\$1 54	
Engineer	1		2 00	
Fireman	1		1 35	
Loom fixers	6		1 50	
Machinists	3		2 35	
Pickers	3		1 25	
Speeders		20		90
Spinners, mule	14		1 40	
Spinners, other		a30		60
Spoolers and warpers		a20		60
Undesignated	6		1 00	
Weavers		125		85
Weavers		5		65

COTTON GOODS (SHEETING), NEW YORK.—ESTAB. No. 230.

Time, 11 hours per day; 296 days the past year.

Back boys	b11		\$0 42	
Bobbin boy	a1		55	
Boomers	2		1 25	
Card grinder	1		1 50	
Card grinders	5		1 37	
Card strippers	6		1 31	
Carpenter	1		2 75	
Carpenter	1		1 50	
Doffers	b6	a12	45	\$0 45
Drawers		6		67
Drawers-in		3		1 00
Engineer	1		2 88	
Fillers	a2		1 75	
Firemen	3		1 44	
Folders	4		1 25	
Frame spinning tenders	2		1 25	
Harness repairer	1		1 50	
Laborers	6		1 25	
Lappers	a2		67	
Lappers	b8		45	
Loom fixers	7		1 75	
Machinist	1		2 75	
Machinist	1		2 30	
Machinists	2		2 25	
Other	1		1 50	
Other	1		1 00	
Others	a2		62	
Overseers	4		3 00	
Overseer	1		1 87	
Picker	1		1 56	
Picker	1		1 00	
Pickers	3		1 12	
Second hands	4		2 00	
Sizer	1		1 00	
Slasher	2		1 87	
Slasher	1		1 37	
Spare hands	2		1 00	
Speeders		5		75
Speeders		12		90
Spinners, mule	8		1 75	
Spinners, other		7		87
Spinners, other		4		75
Spinners, other		5		67
Spoolers		8		70
Trimmers		6		1 00
Twisters	5		1 25	
Undesignated		b7		40
Warpers		8		75

a Youth.

COTTON GOODS (SHEETING), NEW YORK.—ESTAB. No. 230—Concluded.

Time, 11 hours per day; 298 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Waste hand	1		\$1 00	
Watchmen	2		1 38	
Weavers	56	55	1 04	\$1 04
Weavers	17	3	1 00	75

COTTON GOODS (SHEETING), NEW YORK.—ESTAB. No. 231.

Time, 11 hours per day; 305 days the past year.

Back boys	a9		\$0 42	
Carpenter	1		2 50	
Carpenter	1		1 87	
Card boys	a2		67	
Card grinder	1		1 67	
Card grinders	2		1 56	
Card strippers	7		1 25	
Doffers	a2	a10	50	\$0 45
Drawers		3		62
Drawers-in		8		90
Engineer	1		2 00	
Fireman	1		1 37	
Firemen	2		1 50	
Inspector		1		1 12
Laborers	2		1 25	
Laborer	1		83	
Loom fixers	3		1 75	
Machinist	1		2 25	
Mule fixer	1		1 67	
Overseers	2		4 50	
Overseers	2		2 12	
Overseer	1		1 50	
Pickers	b7		45	
Pickers		2		75
Rover	b1		42	
Second hand	1		1 33	
Second hands	2		2 00	
Slasher	1		1 87	
Slasher	a1		87	
Sizer		1		1 00
Speeders		2		1 00
Speeders		8		90
Spinners, mule	8		1 67	
Spinners, other		8		75
Spinners, other		2		70
Spinners, other		2		62
Spoolers		a9		62
Teamster	1		1 31	
Trimmers		4		93
Twisters	5		1 12	
Undesignated		b9		45
Warper		1		1 00
Warper		1		83
Watchman	1		1 37	
Waste hand	1		1 25	
Waste pickers		a2		45
Weavers	51	43	1 00	1 00
Weavers	11	12	75	75

COTTON GOODS (SHEETING, SHIRTING), NEW YORK.—ESTAB. No. 232.

Time, 11 hours per day; 276 days the past year.

Baler	1		\$1 00	
Bobbin boy	b1		37	
Boiler tender	1		1 33	
Brush boy	a1		50	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 228.

COTTON GOODS (SHEETING, SHIRTING), NEW YORK.—ESTAB. No. 233.—Concluded.

Time, 11 hours per day; 276 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card grinder	1		\$1 00	
Card stripper	1		1 00	
Carpenter	1		2 00	
Doffer	a1	b7	75	
Doffers	a1		50	\$0 37
Drawers-in	a2		55	
Drawer	a1		65	
Elevator tender	1		1 00	
Engineer	1		2 50	
Feeder	a1		1 00	
Folder	1		1 50	
Foreman	4		2 25	
Intermediates		2		1 00
Lapper	a1		50	
Laborers	4		1 25	
Laborers	3		1 00	
Laborer	1		75	
Machinist	1		2 00	
Rovers	b4	a3	37	75
Second hand	1		1 02	
Second hands	2		1 50	
Second hands	2		1 25	
Slasher	1		1 80	
Slubber	1		1 13	
Spinners, mule	3		1 60	
Spinners, other	3		95	
Spinners, other	a12		75	
Spoolers		6		80
Store room hand	1		1 50	
Twisters	2		1 00	
Undesignated	1		1 00	
Undesignated	a1		60	
Warpers		3		80
Watchman	1		1 35	
Weavers		52		1 12

COTTON GOODS (SHEETING, SHIRTING), NEW YORK.—ESTAB. No. 233.

Time, 11 hours per day; 300 days the past year.

Back boys	b13		\$0 44	
Blacksmith	1		2 25	
Blacksmiths	2		1 75	
Card boys	a3	a3	62	\$0 62
Card grinders	5		1 12	
Card strippers	2		94	
Card strippers	5		81	
Carpenter (foreman)	1		2 50	
Carpenters	4		1 87	
Carpenters	3		1 50	
Doffers	b8	b9	33	33
Drawers		6		75
Drawers		b4		45
Dressers	3		1 25	
Dressers	2		1 00	
Engineer	1		2 12	
Firemen	1		1 37	
Foreman	1		3 00	
Inspectors	2		1 58	
Laborers	9		1 12	
Laborers	6		1 00	
Laborers	3		75	
Machinists	8		1 87	
Machinists	1		1 25	
Machinist's helper	1		1 00	
Masons	2		1 87	
Oilers	2		1 00	
Overseers	3		2 50	

a Youth.

COTTON GOODS (SHEETING, SHIRTING), NEW YORK.—ESTAB. No. 233.—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Overseers	1		\$2 25	
Painter	1		2 25	
Painter	1		2 12	
Painter	1		1 87	
Painter	1		1 12	
Picker	1		1 25	
Pickers	a5		60	
Scourers	9		1 00	
Second hands	11		1 56	
Slubbers		7		\$0 75
Smash mender	1		1 12	
Spare hands		b1		42
Speeders		8		75
Spinners, mule	13		1 33	
Spinners, other	15			75
Spinners, other	10			55
Spoolers		a12		60
Teamster	1		1 12	
Twisters		a5		50
Undesignated	b5			50
Undesignated	b8			44
Watchmen	3		1 25	
Weavers	10	135	86	86

COTTON GOODS (SHEETING, BUNTING), NEW YORK.—ESTAB. No. 234.

Time, 11 hours per day; 302 days the past year.

Baler	1		\$1 25	
Brush boy	a1		1 00	
Carpenter	1		2 00	
Card grinders	2		1 12	
Card strippers	2		1 00	
Doffers	b2		45	
Doffers	b5	a5	33	\$0 42
Doffers		b5		33
Drawers		2		60
Drawers-in		3		60
Engineer	1		2 50	
Firemen	2		1 16	
Folder	1		1 25	
Intermediates		3		62
Laborer	1		1 25	
Loom fixers	3		1 25	
Machinist	1		1 65	
Overseer	1		2 13	
Overseers	2		1 75	
Overseer	1		1 62	
Picker	1		1 12	
Picker	1		90	
Second hand	1		1 50	
Second hands	a2		67	
Slasher	1		1 62	
Slubbers		2		60
Spare hands	a2		60	
Speeder	1			75
Speeders		4		65
Spinners	a8	2	70	67
Spinners	a2	a5	62	53
Spinners		b2		40
Spoolers		4		71
Spoolers		4		67
Undesignated		a1		60
Warper		1		62
Warper		1		67
Weavers		45		80

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (CALICO), NEW YORK.—ESTAB.
No. 235.

Time, 11½ hours per day; 304 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Back boys	a116		\$0 31	
Back tenders	b44	b49	42	\$0 42
Bobbin boys	a97		38	
Carders		349		87
Card grinders	12		92	
Card strippers	6		69	
Carpenters	14		1 46	
Designer	1		5 00	
Designer's assistants	2		1 92	
Doffers	b14		40	
Drawers	b21	b18	45	45
Drawers	a119	b119	38	38
Dressers, machine.	7		1 68	
Folders	b22		69	
Foremen	2		2 17	
Foremen	14		1 87	
Intermediates	a14	165	35	70
Laborers	75		1 04	
Lappers		b10		50
Loom fixers	13		1 92	
Machinists	12		1 92	
Overseers	24		2 62	
Overseers	7		2 31	
Overseers	5		1 85	
Painters	9		1 33	
Pickers	10		1 00	
Printers	75	88	1 21	1 00
Rovers		b175		50
Second hands	28		1 92	
Second hands	28		1 45	
Sizers	b5		48	
Slashers	14		1 21	
Slashers	28		92	
Slashers' helpers	a29		35	
Slashers' helpers		a18		25
Slubbers		b36		55
Slubbers	77		1 00	
Speeders		b214		50
Spinners, mule	116		1 23	
Spinners, other	400		88	
Spinners, other		189		59
Spinners		a1,078		35
Spoolers		b120		56
Sweepers		b8		50
Teamsters	18		1 92	
Undesignated	21		1 04	
Warpers	b88		48	
Watchmen	14		1 15	
Weavers	90	824	1 29	92
Weavers	b110	b60	44	35
Weighers	7		1 80	
Wheelwright	1		2 31	

COTTON GOODS (YARN), NEW YORK.—ESTAB.
No. 236.

Time, 11 hours per day; 304 days the past year.

Box maker	1		\$1 25	
Carders	6		1 20	
Card grinders	2		1 50	
Engineer	1		2 00	
Fireman	1		1 67	
Offier	1		1 25	
Overseers	2		3 00	
Packers	3		1 15	
Pickers	2		1 25	
Rovers	2		1 25	
Second hands	2		1 87	

a Children.

b Youth.

c Child.

COTTON GOODS (YARN), NEW YORK.—ESTAB.
No. 236—Concluded.

Time, 11 hours per day; 304 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Spare hand	1		\$1 25	
Speeders	4		\$1 05	
Speeders	8		75	
Speeders' helpers	a6		32	
Spinners, mule	9		1 75	
Sweepers	b2		50	
Undesignated	3		1 00	
Undesignated	11		70	
Undesignated	a26		42	
Waste hand	1		1 25	

COTTON GOODS (SHEETING), NORTH CAROLINA.—
ESTAB. No. 237.

Time, 11½ hours per day; — days the past year.

Card boys	a2		\$0 40	
Card grinder	1		1 00	
Doffers	a8		35	
Drawers	b2		60	
Engineer	1		1 50	
Filling hands	a4		35	
Fireman	1		1 00	
Laborers	2		75	
Loom fixers	3		1 50	
Oilers	b2		50	
Overseers	3		1 75	
Packers	2		75	
Packer	1		1 25	
Picker	1		1 25	
Picker	e1		35	
Second hand	1		75	
Slashers	2		1 00	
Slubbers		2		\$0 60
Speeders		9		60
Spinners		b20		45
Spoolers		7		50
Sweepers	a2		35	
Warpers	b3		66	
Watchman	1		75	
Weavers	16	34	75	75

COTTON GOODS (SHEETING), NORTH CAROLINA.—
ESTAB. No. 238.

Time, 11½ hours per day; 262 days the past year.

Beamer	1		\$0 75	
Carders	3		75	
Card grinder	1		75	
Doffers		a10		\$0 30
Drawer	b1		50	
Drawers-in	b2		65	
Elevator tender	1		75	
Filling hand	b1		50	
Loom fixers	3		1 00	
Oilers	a2		40	
Overseers	3		2 50	
Packers	2		75	
Packer	e1		40	
Picker	1		75	
Picker	e1		25	
Rover	1		75	
Slasher	1		90	
Slubbers		2		60
Speeders		7		60

Digitized by

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See pages 91, also summaries, pages 143 to 226.

COTTON GOODS (SHEETING), NORTH CAROLINA.—
ESTAB. No. 238.—Concluded.

Time, 11½ hours per day; 262 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Spinners.....		a10		\$0 45
Spinners.....		a2		50
Spoolers.....		3		55
Sweepers.....	b2	b2	\$0 30	30
Warpers.....		a2		50
Weavers.....		25		70

COTTON GOODS (FLAID), NORTH CAROLINA.—
ESTAB. No. 239.

Time, 11½ hours per day; 225 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beamers.....	3		\$0 75	
Carders.....	4		80	
Card grinders.....	2		1 00	
Doffers.....	b8		40	
Drawers.....		2		\$0 60
Dyers.....	7		75	
Fireman.....	1		1 00	
Lappers.....	2		90	
Lapper.....	1		60	
Loom fixers.....	4		1 13	
Overseer.....	1		3 00	
Overseer.....	1		1 75	
Overseer.....	1		1 00	
Packers.....	2		75	
Pickers.....	3		90	
Quillers.....		a14		50
Reelers.....		16		60
Railway hands.....	a1	a1	60	60
Second hands.....	2		75	
Slubbers.....		6		60
Spare hand.....		1		60
Speeders.....		7		60
Spinners.....		a60		45
Spoolers.....		10		60
Sweepers.....	b2		30	
Warpers.....	a6		60	
Watchman.....	1		90	
Weavers.....	40	40	67	67

COTTON GOODS (FLAID), NORTH CAROLINA.—
ESTAB. No. 240.

Time, 11½ hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Baler.....	1		\$1 25	
Beamers.....	2		1 67	
Card grinders.....	3		1 00	
Carders.....	4		75	
Carpenter.....	1		1 50	
Doffers.....	a10		40	
Doffers.....	b4		30	
Drawers.....		2		\$0 55
Dyers.....	3		75	
Fireman.....	1		75	
Loom fixers.....	3		1 50	
Machinist.....	1		2 00	
Oilers.....	3		75	
Opener.....	1		75	
Overseers.....	5		2 00	
Packers.....	2		1 13	
Packers' helpers.....	b2		35	
Pickers.....	2		1 00	
Quillers.....	b2		35	
Railway hand.....	a1		50	
Reelers.....		5		55

a Youth.

COTTON GOODS (FLAID), NORTH CAROLINA.—
ESTAB. No. 240.—Concluded.

Time, 11½ hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Sizer.....	1		\$0 75	
Slubbers.....		4		\$0 60
Spare hands.....		2		50
Speeders.....		8		60
Spinners.....		a24		50
Spoolers.....		14		55
Spool carrier.....	a1		40	
Sweeper.....	a1		40	
Twisters.....	a2	a5	60	50
Warpers.....	5	1	1 00	60
Watchman.....	1		1 00	
Weavers.....	18	48	90	90
Winders.....		10		75

COTTON GOODS (FLAID, TOWELS, AND BAGS),
NORTH CAROLINA.—ESTAB. No. 241.

Time, 11½ hours per day; 306 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Baler.....	1		\$1 00	
Beamer.....	1		2 50	
Beamers.....	3		1 00	
Carders.....	2		80	
Card grinders.....	1		1 50	
Doffers.....	b10		30	
Doffers.....	b2		40	
Drawers.....		3		\$0 50
Drawers-in.....	4		75	
Dyers.....	7		75	
Engineers.....	3		1 00	
Folder.....	1		1 00	
Loom fixers.....	2		1 00	
Oilers.....	a3		50	
Overseers.....	2		2 50	
Overseers.....	5		1 50	
Pickers.....	2		75	
Quillers.....	b6	a8	40	40
Reelers.....		5		50
Slubbers.....		3		60
Speeders.....		5		60
Spinners.....		a20		45
Spoolers.....		5		50
Sweepers.....	b5		25	
Teamster.....	1		1 00	
Twisters.....		a2		40
Warpers.....	2		1 25	
Watchmen.....	2		1 00	
Weavers.....	2		1 00	
Weavers.....	26	61	75	75
Winders.....	4		75	

COTTON GOODS (YARN), NORTH CAROLINA.—ESTAB.
No. 242.

Time, 11½ hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Baler.....	1		\$0 90	
Baler.....	a1		40	
Carders.....	3		75	
Card grinders.....	2		95	
Doffers.....	a5	a3	42	\$0 43
Drawers.....		2		60
Engineer.....	1		2 50	
Fireman.....	1		1 00	
Loom fixer.....	1		1 00	
Oilers.....	a2		45	
Overseers.....	2		2 50	
Pickers.....	2		80	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 236.

COTTON GOODS (YARN), NORTH CAROLINA.—ESTAB.
No. 242—Concluded.

Time, 11½ hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Railway hands.....	a1	.....	\$0 55	.....
Reelers.....	.....	3	.....	\$0 60
Second hand.....	1	.....	85	.....
Slubbers.....	.....	2	.....	60
Spare hand.....	.....	1	.....	60
Speeders.....	.....	5	.....	60
Spinners.....	.....	a16	.....	45
Spoolers.....	.....	11	.....	55
Sweeper.....	a1	.....	40	.....
Teamster.....	1	.....	80	.....
Twisters.....	.....	a5	.....	55
Warpers.....	4	.....	1 00	.....
Watchman.....	1	.....	1 00	.....

COTTON GOODS (GINGHAM), PENNSYLVANIA.—
ESTAB. No. 243.

Time, 10 hours per day; 302 days the past year.

Beamers.....	12	.....	\$2 00	.....
Card boys.....	a3	.....	78	.....
Card grinders.....	2	.....	1 54	.....
Doffers.....	.....	a19	.....	\$0 50
Drawers.....	.....	a2	.....	67
Dyers.....	10	.....	1 67	.....
Dyer boys.....	a5	.....	97	.....
Engineers.....	2	.....	2 43	.....
Finishers.....	a8	2	63	92
Oilers.....	a3	.....	90	.....
Overseers.....	15	.....	2 25	.....
Packers.....	2	.....	2 18	.....
Pickers.....	2	.....	94	.....
Reelers.....	.....	12	.....	90
Repair hand.....	1	.....	2 17	.....
Slubbers.....	.....	2	.....	1 12
Spare hands.....	.....	a5	.....	75
Speeders.....	.....	9	.....	1 12
Spinners.....	.....	28	.....	88
Spoolers.....	.....	15	.....	90
Sweepers.....	a2	.....	50	.....
Undesignated.....	a4	.....	50	.....
Warpers.....	5	.....	1 85	.....
Watchman.....	4	.....	1 67	.....
Weavers.....	40	134	1 12	1 12
Winders.....	49	.....	66	.....

COTTON GOODS (DRILLING), SOUTH CAROLINA.—
ESTAB. No. 244.

Time, 11 hours per day; 306 days the past year.

Carders.....	42	.....	\$0 85	.....
Cloth-room hands.....	7	.....	1 00	.....
Dressers and spoolers.....	.....	44	.....	\$0 90
Laborers.....	15	.....	85	.....
Repair hands.....	8	.....	2 00	.....
Spinners.....	.....	80	.....	65
Watchmen.....	5	.....	1 10	.....
Weavers.....	91	.....	92	.....

a Youth.

COTTON GOODS (PRINT CLOTH), VERMONT. ESTAB.
No. 245.

Time, 11 hours per day; 230 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card grinders.....	2	.....	\$1 50	.....
Card strippers.....	2	.....	1 00	.....
Carpenter.....	1	.....	2 00	.....
Doffers.....	a3	a7	42	\$0 42
Drawers-in.....	.....	6	.....	90
Elevator tenders.....	5	.....	87	.....
Engineer.....	1	.....	4 33	.....
Fireman.....	1	.....	1 50	.....
Folder.....	1	.....	1 10	.....
Folder.....	a1	.....	75	.....
Inspector.....	1	.....	1 50	.....
Loom fixers.....	5	.....	1 50	.....
Oiler.....	1	.....	90	.....
Overseers.....	5	.....	2 75	.....
Pickers.....	4	.....	1 00	.....
Piecers.....	a11	.....	75	.....
Roll coverer.....	1	.....	1 00	.....
Rovers and back boys.....	a20	.....	50	.....
Slasher.....	1	.....	1 50	.....
Slasher.....	1	.....	90	.....
Second hands.....	4	.....	1 50	.....
Slubbers.....	.....	6	.....	88
Spare hands.....	.....	6	.....	82
Speeders.....	14	.....	82	.....
Spinners, mule.....	12	.....	1 20	.....
Spinners, other.....	.....	a25	.....	65
Sweepers.....	.....	a6	.....	42
Teamsters.....	2	.....	1 25	.....
Undesignated.....	.....	4	.....	95
Weavers.....	65	50	1 00	82

COTTON GOODS (SEAMING), VIRGINIA.—ESTAB.
No. 246.

Time, 11 hours per day; 285 days the past year.

Beamers.....	3	.....	\$0 83	.....
Carders.....	3	.....	70	.....
Card grinders.....	2	.....	97	.....
Doffers.....	a11	.....	33	.....
Drawers.....	.....	2	.....	\$0 50
Engineer.....	1	.....	1 13	.....
Filling hands.....	1	.....	94	.....
Laborers.....	3	.....	79	.....
Machinists.....	2	.....	1 88	.....
Overseers.....	6	.....	1 50	.....
Packers.....	5	.....	80	.....
Pickers.....	3	.....	80	.....
Railway hands.....	1	.....	79	.....
Second hands.....	2	.....	1 25	.....
Slubbers.....	a4	.....	44	.....
Speeders.....	a7	.....	42	.....
Spinners.....	a13	a14	44	38
Spoolers.....	.....	a7	.....	35
Teamsters.....	2	.....	85	.....
Undesignated.....	a2	.....	67	.....
Undesignated.....	a3	.....	47	.....
Warpers.....	.....	a4	.....	45
Weavers.....	.....	55	.....	75

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

COTTON GOODS (SHEETING), VIRGINIA.—ESTAB.
No. 247.

Time, 11 hours per day; 296 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card boys	a2		\$0 70	
Carders	2		90	
Card grinders	2		1 00	
Doffers	b8		40	
Drawers		2		\$0 55
Foreman	1		1 12	
Loom fixers	3		1 20	
Machinist	1		2 00	
Overseers	3		2 25	
Overseer	1		1 25	
Overseers	2		1 12	
Packer	1	2	1 60	55
Pickers	2		1 00	
Picker	a1		65	
Railway hands		1		55
Slasher	1		1 70	
Slubbers		3		55
Spare hand	1	2	90	55
Spare hands		a3		45
Speeders		10		55
Spinners		a21		45
Spoolers		5		55
Sweepers		b2		40
Sweepers		b4		30
Warpers		2		75
Watchmen	2		1 15	
Weavers		58		75

COTTON GOODS (SHEETING), VIRGINIA.—ESTAB.
No. 248.

Time, 11 hours per day; 302 days the past year.

Carders	2		\$0 75	
Card grinders	2		90	
Doffers	b10		40	
Drawer		1		\$0 83
Fireman	1		1 00	
Laborers	2		1 21	
Machinist	1		2 00	
Oilers	a8		50	
Overseers	3		2 50	
Packers	2		1 00	
Packers		a2		55
Pickers	2		1 06	
Railway hand	a1		50	
Second hands	3		1 25	
Slubbers		3		68
Speeders		6		68
Spinners		a35		55
Spoolers		a6		55
Sweepers		b2		40
Warpers		a4		55
Watchman	1		1 25	
Weavers		64		75

COTTON GOODS (FLAID), VIRGINIA.—ESTAB. No.
249.

Time, 11 hours per day; 306 days the past year.

Baler	1		\$1 00	
Card boys	b2		80	
Card grinder	1		1 75	
Doffers	a3		50	
Drawers		3		\$0 50
Drawer-in		1		1 10
Drawer-in		1		75

a Youth.

COTTON GOODS (FLAID), VIRGINIA.—ESTAB. No.
249—Concluded.

Time, 10 hours per day; 306 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Dresser	a1		\$0 75	
Dresser	a1		50	
Dyers	7		1 00	
Elevator tender	1		53	
Fireman	1		1 10	
Folder	1		1 00	
Inspectors	a2		75	
Loom fixers	2		1 50	
Machinist	1		2 75	
Oiler	a1		1 00	
Overseers	3		2 50	
Overseers	2		2 00	
Overseer	1		1 75	
Overseer	1		1 25	
Packer	a1		75	
Picker	1		1 00	
Picker	b1		30	
Quillers	b4	b6	50	\$0 50
Railway hands	a2		75	
Reelers		2		75
Slubber		1		75
Spare hands	a2	a2	60	60
Speeders		3		75
Spinners	a4	a5	50	50
Spoolers		12		67
Undesignated	b1		30	
Warpers		3		60
Waste hand	1		1 00	
Watchman	1		1 00	
Weavers	25	24	1 10	1 10

ENGRAVING AND PRINTING, NEW JERSEY.—ESTAB.
No. 250.

Time, 11 hours per day; 308 days the past year.

Artists	6		\$4 87	
Carpenters	2		2 78	
Cutters	10		2 73	
Electrotypers	6		2 82	
Engravers	8		5 52	
Glossers	6		1 62	
Lithograph printers	37		3 24	
Machinists	2		2 92	

FOOD PREPARATIONS (REFINED BEET SUGAR), CALIFORNIA.—ESTAB. No. 251.

Time, 10 hours per day; 217 days the past year.

Battery men	2		\$2 00	
Best-room men	20		2 00	
Bone-black men	10		1 15	
Chemist	1		4 00	
Coal passers	2		1 25	
Engineers	15		5 00	
Engineer	1		3 00	
Evaporator men	2		1 00	
Firemen	2		2 50	
Firemen's helpers	10		1 00	
Foreman	1		2 00	
Foreman	1		1 50	
Laborers	6		1 00	
Liquor men	2		1 75	
Osmogeners	2		1 25	
Sugar packer	1		1 25	
Teamster	1		3 00	
Watchman	1		1 00	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

FOOD PREPARATIONS (FLOUR), CALIFORNIA.—ESTAB.
No. 252.

Time, 24 hours per day (two turns); 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineer.....	1		\$3 50	
Fireman.....	1		2 50	
Laborer.....	1		2 50	
Millers.....	3		5 00	
Packer.....	1		3 00	
Packers.....	2		2 50	
Teamsters.....	3		2 60	
Undesignated.....	2		1 75	
Watchman.....	1		2 50	
Wheat dumpers.....	4		2 50	

FOOD PREPARATIONS (FLOUR), CALIFORNIA.—ESTAB.
No. 253.

Time, 24 hours per day (two turns); — days the past year.

Engineer.....	1		\$5 00	
Laborers.....	2		2 50	
Millers.....	2		4 00	
Packers.....	2		3 50	
Teamsters.....	2		3 33	
Watchman.....	1		2 50	
Wheat dumper.....	1		3 50	

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 254.

Time, 24 hours per day (two turns); 300 days the past year.

Engineers.....	2		\$3 58	
Firemen.....	2		2 33	
Laborers.....	2		1 50	
Millers.....	10		3 50	
Packers.....	2		2 00	
Packers.....	4		1 75	
Roll tender.....	1		1 75	
Sweeper.....	1		1 50	
Watchmen.....	2		2 00	

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 255.

Time, 24 hours per day (two turns); 260 days the past year.

Cleaner.....	1		\$1 50	
Engineers.....	2		2 50	
Firemen.....	2		2 60	
Laborers.....	4		1 50	
Miller, head.....	1		5 00	
Millers.....	2		3 00	
Packers.....	4		1 60	
Teamster.....	1		1 60	

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 256.

Time, 24 hours per day (two turns); 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cleaners.....	2		\$1 50	
Engineers.....	2		2 00	
Laborers.....	6		1 50	
Miller, head.....	1		5 00	
Millers.....	2		2 09	
Packers.....	2		1 50	
Sweepers.....	2		1 50	
Teamsters.....	3		1 50	

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 257.

Time, 24 hours per day (two turns); 275 days the past year.

Engineer.....	1		\$2 00	
Engineer.....	1		1 50	
Laborers.....	2		1 00	
Millers, head.....	2		3 00	
Millers.....	2		2 31	
Teamsters.....	2		1 33	

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 258.

Time, 24 hours per day (two turns); 300 days the past year.

Engineers.....	3		\$2 50	
Firemen.....	3		2 00	
Laborers.....	26		1 75	
Millers.....	5		2 75	
Packers.....	2		2 00	
Sweepers.....	4		1 75	
Watchmen.....	2		2 00	

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 259.

Time, 24 hours per day (two turns); 250 days the past year.

Engineer.....	1		\$3 00	
Engineer.....	1		2 00	
Laborers.....	3		1 50	
Miller, head.....	1		5 75	
Millers.....	2		2 90	
Oilier.....	1		2 00	
Packers.....	2		1 75	
Teamsters.....	2		1 75	
Watchman.....	1		1 60	

e Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 260.

Time, 24 hours per day (two turns); 280 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cleaner	1	.....	\$3 20	.....
Engineer	1	.....	8 00	.....
Engineer	1	.....	2 00	.....
Laborers	4	.....	1 00	.....
Miller, head	1	.....	5 20	.....
Miller	1	.....	1 92	.....
Miller	1	.....	2 31	.....
Sweepers	3	.....	1 50	.....
Teamsters	2	.....	1 92	.....

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 261.

Time, 24 hours per day (two turns); 275 days the past year.

Cleaners	2	.....	\$1 73	.....
Engineer	1	.....	2 88	.....
Engineer	1	.....	1 92	.....
Firemen	2	.....	1 50	.....
Laborers	4	.....	1 25	.....
Miller, head	1	.....	5 00	.....
Millers	2	.....	2 31	.....
Packers	4	.....	1 92	.....
Sweepers	2	.....	1 50	.....
Teamsters	3	.....	1 50	.....

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 262.

Time, 12 hours per day; 225 days the past year.

Barrel naller	1	.....	\$1 33	.....
Engineer	1	.....	2 17	.....
Fireman	1	.....	1 25	.....
Laborers	2	.....	1 17	.....
Miller	1	.....	2 70	.....
Packer	1	.....	1 50	.....
Sweeper	1	.....	1 25	.....
Spoutsmen	1	.....	1 50	.....
Teamster	1	.....	1 67	.....
Watchman	1	.....	1 25	.....

FOOD PREPARATIONS (FLOUR), ILLINOIS.—ESTAB.
No. 263.

Time, 24 hours per day (two turns); 247 days the past year.

Barrel naller	1	.....	\$1 00	.....
Engineer	1	.....	3 00	.....
Laborers	3	.....	1 40	.....
Miller	1	.....	3 25	.....
Packer	1	.....	1 66	.....
Packer	1	.....	1 50	.....
Roll tender	1	.....	1 50	.....
Spoutsmen	1	.....	1 50	.....
Sweeper	1	.....	1 25	.....
Teamsters	3	.....	1 50	.....
Watchman	1	.....	1 25	.....

FOOD PREPARATIONS (FLOUR), INDIANA.—ESTAB.
No. 264.

Time, 24 hours per day (two turns); 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cleaners	2	.....	\$1 80	.....
Engineers	3	.....	2 40	.....
Laborers	4	.....	1 80	.....
Miller, head	1	.....	6 00	.....
Millers	2	.....	2 40	.....
Millwright	1	.....	3 00	.....
Packers	2	.....	1 80	.....
Sweepers	2	.....	1 80	.....
Teamsters	2	.....	2 00	.....

FOOD PREPARATIONS (CURED AND PACKED MEATS),
INDIANA.—ESTAB. No. 265.

Time, 10 hours per day; 300 days the past year.

Butchers	75	.....	\$2 50	.....
Laborers	420	.....	1 50	.....
Mechanics	45	.....	2 25	.....
Undesignated	a32	a60	75	75

FOOD PREPARATIONS (FLOUR), MINNESOTA.—
ESTAB. No. 266.

Time, 24 hours per day (two turns); 313 days the past year.

Laborers	23	.....	\$2 50	.....
Laborers	85	.....	1 62	.....
Machinists	14	.....	2 37	.....
Millers	83	.....	2 50	.....
Millwrights	21	.....	2 62	.....
Oilers	39	.....	2 12	.....
Packers	28	.....	2 00	.....
Sweepers	50	.....	1 62	.....

FOOD PREPARATIONS (FLOUR), MISSOURI.—ESTAB.
No. 267.

Time, 24 hours per day (two turns); — days the past year.

Engineers	2	.....	\$3 00	.....
Firemen	2	.....	2 00	.....
Laborers	30	.....	1 50	.....
Miller, head	1	.....	6 92	.....
Miller	1	.....	3 94	.....
Millers	2	.....	2 68	.....

FOOD PREPARATIONS (FLOUR), MISSOURI.—ESTAB.
No. 268.

Time, 12 hours per day; — days the past year.

Barrel nallors	2	.....	\$1 65	.....
Cleaners	2	.....	1 65	.....
Engineer	1	.....	4 80	.....
Firemen	2	.....	2 85	.....
Laborers	15	.....	1 50	.....
Miller, head	1	.....	4 80	.....
Millers	2	.....	3 85	.....
Millers' helpers	2	.....	2 50	.....

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

FOOD PREPARATIONS (FLOUR), MISSOURI.—ESTAB.
No. 268.—Concluded.

Time, 12 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Others	2	.....	\$1 85	.....
Packers	2	.....	2 00	.....
Packers	2	.....	1 65	.....
Sweepers	2	.....	1 65	.....
Undesignated	1	.....	1 65	.....
Wheat inspectors	2	.....	2 00	.....

FOOD PREPARATIONS (FLOUR), MISSOURI.—ESTAB.
No. 269.

Time, 24 hours per day (two turns); 300 days the past year.

Engineer	1	.....	\$1 92	.....
Engineer	1	.....	1 58	.....
Laborers	2	.....	1 00	.....
Miller	1	.....	2 90	.....
Miller	1	.....	1 58	.....

FOOD PREPARATIONS (FLOUR), MISSOURI.—ESTAB.
No. 270.

Time, 24 hours per day (two turns); — days the past year.

Engineers	2	.....	\$3 00	.....
Firemen	2	.....	2 00	.....
Foreman	1	.....	6 92	.....
Laborers	30	.....	1 50	.....
Miller, head	1	.....	3 83	.....
Millers	2	.....	2 88	.....

FOOD PREPARATIONS (FLOUR), NEW HAMPSHIRE.—
ESTAB. No. 271.

Time, 24 hours per day (two turns); 275 days the past year.

Cleaner	1	.....	\$0 85	.....
Miller, head	1	.....	3 85	.....
Millers	2	.....	3 08	.....
Miller	1	.....	2 69	.....
Miller	1	.....	3 21	.....
Packers	2	.....	1 65	.....
Sweeper	1	.....	1 25	.....

FOOD PREPARATIONS (FLOUR), OHIO.—ESTAB. No. 272.

Time, 11 hours per day; 250 days the past year.

Engineer	1	.....	\$1 50	.....
Miller	1	.....	1 75	.....
Packer	1	.....	1 25	.....
Porter	1	.....	1 00	.....
Teamster	1	.....	1 25	.....

FOOD PREPARATIONS (FLOUR), OHIO.—ESTAB. No. 273.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineers	2	.....	\$3 50	.....
Firemen	2	.....	2 33	.....
Laborers	8	.....	1 67	.....
Millers	6	.....	2 66	.....
Packers	7	.....	1 92	.....
Sweepers	2	.....	1 67	.....

FOOD PREPARATIONS (FLOUR), OHIO.—ESTAB. No. 274.

Time, 24 hours per day (two turns); — days the past year.

Coopers	7	.....	\$1 50	.....
Engineers	2	.....	1 50	.....
Laborers	6	.....	1 50	.....
Millers	5	.....	2 50	.....
Packers	2	.....	1 75	.....
Teamsters	3	.....	1 25	.....

FOOD PREPARATIONS (SALT), OHIO.—ESTAB. No. 275.

Time, 24 hours per day (two turns); 300 days the past year.

Ash hauler	1	.....	\$1 25	.....
Brine tender	1	.....	1 25	.....
Bromine maker	1	.....	2 00	.....
Coopers	12	.....	1 25	.....
Engineers	2	.....	1 25	.....
Firemen	4	.....	1 25	.....
Furnace boss	1	.....	3 00	.....
Salt lifters	8	.....	1 00	.....
Salt maker	1	.....	2 00	.....
Salt packers	5	.....	1 25	.....

FOOD PREPARATIONS (SALT), OHIO.—ESTAB. No. 276.

Time, 24 hours per day (two turns); 163 days the past year.

Barrel makers	2	.....	\$1 00	.....
Coopers	12	.....	1 25	.....
Drivers	2	.....	1 25	.....
Engineers	2	.....	1 25	.....
Firemen	4	.....	1 25	.....
Furnace boss	1	.....	2 00	.....
Laborer	1	.....	1 00	.....
Mine boss	1	.....	2 00	.....
Miners &	15	.....	1 50	.....
Salt lifters	7	.....	1 00	.....
Salt maker	1	.....	1 25	.....
Salt packers	5	.....	1 00	.....

a This establishment mines its own coal.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Con'td.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

FOOD PREPARATIONS (SALT), OHIO.—ESTAB.
No. 277.

Time, 24 hours per day (two turns) ; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Brine tender	1	.....	\$1 25	.....
Coopers	12	.....	1 00	.....
Cooper	1	.....	1 33	.....
Driver a	1	.....	1 25	.....
Drivers a	2	.....	1 00	.....
Engineers	2	.....	1 25	.....
Fireman	1	.....	1 50	.....
Firemen	3	.....	1 25	.....
Mine boss a	1	.....	1 67	.....
Miners a	16	.....	1 25	.....
Salt lifters	8	.....	1 10	.....
Salt maker	1	.....	2 00	.....
Scaffold man	1	.....	1 00	.....
Well tender	1	.....	1 50	.....

FOOD PREPARATIONS (FLOUR), WEST VIRGINIA.—
ESTAB. No. 278.

Time, 11 hours per day ; 300 days the past year.

Engineer	1	.....	\$2 00	.....
Laborer	1	.....	1 42	.....
Miller, head	1	.....	3 53	.....
Miller	1	.....	1 87	.....
Packer	1	.....	1 67	.....
Weighter	1	.....	1 67	.....

FURNITURE (CHAIRS), INDIANA.—ESTAB. No. 279.

Time, 10 hours per day ; 300 days the past year.

Cabinet makers	25	.....	\$2 00	.....
Chair makers	2	.....	2 00	.....
Engineer	1	.....	2 50	.....
Foremen	4	.....	3 00	.....
Laborers	6	.....	1 50	.....
Laborers	6	.....	1 00	.....
Machine men	14	.....	1 50	.....
Machine men	1	.....	2 50	.....
Turners	3	.....	2 00	.....
Varnisher	1	.....	1 50	.....
Varnishers	21	.....	1 25	.....

FURNITURE (CHAIRS), INDIANA.—ESTAB. No. 280.

Time, 10 hours per day ; 300 days the past year.

Chair maker	1	.....	\$2 50	.....
Chair makers	6	.....	2 00	.....
Finishers	10	.....	1 50	.....
Finishers	10	.....	1 00	.....
Laborers	10	.....	1 25	.....
Laborers	6	.....	80	.....
Machine men	2	.....	2 50	.....
Machine men	28	.....	1 50	.....
Upholsterers	5	.....	2 00	.....

a This establishment mines its own coal.

FURNITURE (SEWING-MACHINE FURNITURE), INDI-
ANA.—ESTAB. No. 281.

Time, 10 hours per day ; 265 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cabinet makers	118	.....	\$1 50	.....
Engineer	1	.....	3 33	.....
Firemen	5	.....	1 50	.....
Gate keeper	1	.....	1 35	.....
Laborers	23	.....	1 00	.....
Machine men	25	.....	2 00	.....
Machine men	20	.....	1 75	.....
Machine men	60	.....	1 50	.....
Machine men	35	.....	1 35	.....
Machine men	12	.....	1 00	.....
Machine men	518	.....	75	.....
Machine men	540	.....	50	.....
Packer	1	.....	1 75	.....
Packers	3	.....	1 40	.....
Packers	20	.....	1 10	.....
Varnishers	30	.....	1 50	.....
Watchmen	5	.....	1 50	.....

FURNITURE (BEDROOM, PARLOR, ETC.), KEN-
TUCKY.—ESTAB. No. 282.

Time, 9 hours per day ; 253 days the past year.

Cabinet makers	27	.....	\$1 80	.....
Carvers	6	.....	2 25	.....
Laborers	8	.....	1 13	.....
Machine men	32	.....	1 50	.....
Packers	3	.....	1 35	.....
Teamsters	3	.....	1 35	.....
Upholsterers	5	.....	1 50	.....
Varnishers	33	.....	1 25	.....

FURNITURE (CENTRE TABLES), MICHIGAN.—ESTAB.
No. 283.

Time, 10 hours per day ; 296 days the past year.

Apprentices	53	.....	\$0 67	.....
Cabinet maker	1	.....	3 25	.....
Cabinet makers	7	.....	1 55	.....
Cabinet makers	2	.....	1 25	.....
Engineer	1	.....	3 00	.....
Finishers	2	.....	1 90	.....
Finishers	7	.....	1 50	.....
Finishers	4	.....	1 30	.....
Finishers	2	.....	1 00	.....
Fireman	1	.....	1 25	.....
Foreman	1	.....	3 34	.....
Foreman	2	.....	3 00	.....
Laborers	2	.....	1 50	.....
Laborer	1	.....	1 25	.....
Machine man	1	.....	2 50	.....
Machine men	3	.....	2 33	.....
Machine men	7	.....	2 00	.....
Machine men	4	.....	1 75	.....
Machine men	4	.....	1 55	.....
Machine man	1	.....	1 15	.....
Machine-man's help- er	51	.....	50	.....
Teamster	1	.....	2 50	.....
Trimmer	3	.....	3 00	.....
Trimmers	3	.....	1 75	.....
Trimmers	2	.....	1 25	.....
Watchman	1	.....	1 50	.....

b Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

FURNITURE (BEDROOM), MICHIGAN.—ESTAB. No. 284.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carver	1		\$3 00	
Carver	1		2 50	
Elevator tenders	a3		40	
Engineer	1		2 75	
Finishers	2		1 75	
Finishers	2		1 50	
Finishers	8		1 25	
Finishers	17		1 15	
Finishers	a4		75	
Fireman	1		1 25	
Foreman	1		3 25	
Foreman	1		2 25	
Foreman	1		2 00	
Foreman	1		1 75	
Foreman	1		1 50	
Laborers	4		1 25	
Machine man	1		2 50	
Machine man	1		2 00	
Machine men	2		1 75	
Machine men	10		1 50	
Machine men	8		1 25	
Machine men	4		1 00	
Packers	5		1 10	
Planers	b2		40	
Sanders	b3		35	
Sawyers	b2		35	

FURNITURE, MICHIGAN.—ESTAB. No. 285.

Time, 10 hours per day; 290 days the past year.

Cabinet makers	3		\$3 00	
Cabinet makers	15		2 50	
Cabinet makers	14		2 25	
Cabinet makers	12		2 00	
Cabinet makers	11		1 67	
Cabinet makers	4		1 50	
Cabinet makers	12		1 25	
Cabinet makers	5		1 00	
Cabinet makers	a6		50	
Carvers	12		2 60	
Carvers	2		2 25	
Carvers	2		1 60	
Carvers	2		1 25	
Carvers	a2		80	
Carvers	a4		60	
Engineer	1		3 25	
Engineer	1		2 75	
Finisher	1		2 50	
Finishers	3		2 25	
Finishers	5		2 00	
Finishers	2		1 80	
Finishers	17		1 55	
Finishers	21		1 25	
Finishers	24		1 05	
Firemen	2		2 00	
Fireman	1		1 25	
Foreman	1		4 50	
Foreman	3		4 00	
Foreman	2		3 50	
Foreman	1		2 75	
Foreman	3		2 50	
Foreman, assistant	1		1 75	
Laborer	1		2 50	
Laborer	1		2 00	

a Youth.

FURNITURE, MICHIGAN.—ESTAB. No. 285—Concluded.

Time, 10 hours per day; 290 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Laborers	6		\$1 67	
Laborers	2		1 50	
Laborers	12		1 25	
Laborer	a1		65	
Machine man	1		3 00	
Machine men	2		2 75	
Machine men	5		2 50	
Machine men	6		2 25	
Machine men	18		2 00	
Machine men	17		1 75	
Machine men	7		1 55	
Machine men	7		1 20	
Machine men	5		1 00	
Machine men	a2		80	
Machine men	a16		55	
Packer	1		2 50	
Packers	2		1 75	
Packers	6		1 55	
Packers	6		1 25	
Trimmers	2		2 25	
Trimmers	3		2 00	
Trimmers	8		1 75	
Trimmers	3		1 50	
Trimmer	1		1 25	
Upholsterers	3		2 00	
Upholsterers	2		1 75	
Upholsterers	3		1 50	
Upholsterers	2		1 00	

FURNITURE, MICHIGAN.—ESTAB. No. 286.

Time, 10 hours per day; 280 days the past year.

Apprentice	a1		\$0 50	
Apprentices	a5		91	
Cabinet makers	11		2 50	
Cabinet makers	11		1 83	
Cabinet makers	10		1 25	
Carver	1		2 75	
Carvers	10		2 25	
Engineer	1		2 00	
Finishers	2		1 80	
Finishers	89		1 50	
Finishers	21		1 25	
Finishers	8		1 00	
Finisher	a1		75	
Finisher	a1		50	
Laborer	1		2 00	
Laborers	2		1 75	
Laborers	2		1 50	
Laborers	15		1 25	
Laborers	2		1 00	
Laborers	10		75	
Laborers	2		65	
Lumbermen	2		1 75	
Lumbermen	4		1 25	
Lumbermen	2		1 00	
Machine men	23		2 00	
Machine men	10		1 75	
Machine men	4		1 50	
Machine men	9		1 40	
Machine men	6		1 25	
Machine-men's help- ers	5		1 10	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

FURNITURE, MICHIGAN.—ESTAB. No. 286—Concluded.

Time, 10 hours per day; 280 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Machine-men's help-ers	3		\$1 00	
Machine-men's help-er	a1		65	
Machine-men's help-ers	a13		50	
Packers	2		1 75	
Packers	6		1 50	
Packer	1		1 25	
Packer	1		80	
Trimmers	2		1 75	
Trimmers	6		1 50	
Upholsterers	2		3 00	
Upholsterers	3		2 50	
Upholsterer	1		2 00	
Upholsterers	3		1 00	
Veneerer	1		3 00	
Veneerers	4		2 00	
Veneerer	1		1 75	
Veneerers	7		1 50	
Veneerer	1		1 25	
Watchman	1		1 75	

GLASS (GREEN BOTTLES), CALIFORNIA.—ESTAB. No. 287.

Time, 10 hours per day; 230 days the past year.

Blowers	28		\$4 33	
Carrying boys	a40		50	
Demijohn coverers	15		1 50	
Engineer	1		2 50	
Gatherers	a14		1 25	
Laborers	15		1 75	
Machinists and blacksmiths	3		3 00	
Mixers	3		2 50	
Oven boys	a8		1 25	
Packers	8		2 25	
Pot makers	2		3 00	
Teamsters	3		3 00	
Teaser	1		4 00	
Teasers	2		2 50	
Undesignated	5		2 25	

GLASS (WINDOW GLASS), ILLINOIS.—ESTAB. No. 288.

Time, 10 hours per day; 240 days the past year.

Blowers	16		\$6 25	
Cutters	6		5 55	
Flatteners	4		6 25	
Gatherers	16		4 00	

GLASS (GREEN BOTTLES), KENTUCKY.—ESTAB. No. 289.

Time, 10 hours per day; — days the past year.

Blacksmith	1		\$2 25	
Blowers	20		4 00	
Foreman	1		3 00	

a Youth. b Other occupations not reported.

GLASS (GREEN BOTTLES), KENTUCKY.—ESTAB. No. 289—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foreman, assistant	1		\$1 67	
Laborers	3		1 25	
Laborers	18		1 00	
Mixer	1		3 00	
Packer	1		2 25	
Packers	a2		75	
Teamster	1		1 25	
Teasers	2		1 40	
Tender boys	a5		83	
Tender boys	a12		33	
Watchman	1		1 15	

GLASS (GREEN BOTTLES), NEW JERSEY.—ESTAB. No. 290.

Time, 9 hours per day; 240 days the past year.

Blacksmiths	4		\$3 00	
Blowers	132		4 50	
Clay grinders	2		1 50	
Engineers	2		1 75	
Gatherers	a24		1 00	
Laborers	10		1 25	
Leersman	1		1 50	
Mixers	4		2 50	
Packers	12		1 75	
Pot maker	1		3 50	
Shearers	8		1 75	
Snap-up boys	a16		50	
Teamsters	10		1 50	
Treaders	4		1 25	
Waremen	3		1 40	

GLASS (WINDOW GLASS, GREEN BOTTLES), NEW JERSEY.—ESTAB. No. 291.

Time, 9 hours per day; 260 days the past year.

Blacksmith	1		\$2 62	
Blowers	46		4 77	
Blowers	8		4 00	
Box makers	2		1 64	
Cutters	4		4 00	
Engineers	2		1 57	
Foreman	1		4 87	
Gatherers	8		2 97	
Laborers	20		1 17	
Master shearer	1		4 50	
Master shearers	2		3 23	
Mixers	2		1 97	
Packer	1		1 80	
Packers	6		1 17	
Pot maker	1		2 70	
Shearers	3		1 80	
Undesignated	a52		68	

GLASS (GREEN BOTTLES), NEW JERSEY.—ESTAB. No. 292.

Time 8 hours per day; 260 days the past year.

Blowers	21		\$4 16	
Box makers	2		1 33	
Gatherers	a2		1 00	

c Blowers, gatherers, and flatteners worked 180 days.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

GLASS (GREEN BOTTLES), NEW JERSEY.—ESTAB.
No. 292.—Concluded.

Time 8 hours per day; 200 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Laborers.....	2		\$1 17	
Leersmen.....	2		1 50	
Master shearer.....	1		3 00	
Mixer.....	1		1 33	
Shearers.....	2		1 50	
Snap-up boys.....	a16		60	
Wareman.....	1		1 66	

GLASS (WINDOW GLASS), NEW JERSEY.—ESTAB.
No. 293.

Time, 7½ hours per day; 260 days the past year.

Blacksmiths.....	32		\$2 00	
Blowers.....	23		4 50	
Box makers.....	6		1 33	
Clay grinder.....	2		1 16	
Cutters.....	16		4 16	
Engineers.....	4		1 33	
Flatteners.....	8		4 80	
Flatteners.....	2		4 00	
Gatherers.....	32		3 00	
Laborers.....	4		1 17	
Leersmen and shov- ers.....	16		2 66	
Master shearers.....	4		3 33	
Mixers.....	4		1 33	
Packers.....	4		1 16	
Pot maker.....	1		2 50	
Shearers.....	8		1 33	
Teamsters.....	8		1 33	
Treader.....	1		1 25	

GLASS (GREEN BOTTLES), OHIO.—ESTAB. No. 294.

Time, 9 hours per day; 210 days the past year.

Blacksmith.....	1		\$3 00	
Blowers.....	16		4 50	
Box maker.....	1		1 66	
Chippers.....	3		1 80	
Engineer.....	1		1 66	
Gatherers.....	a8		1 25	
Grinder.....	a1		83	
Inspector.....	1		1 33	
Laborer.....	1		1 50	
Laying-up boys.....	a4		1 25	
Master teaser.....	1		5 00	
Mixers.....	2		1 75	
Packers.....	4		1 50	
Pier.....	a1		50	
Roller boys.....	b8		25	
Teasers.....	3		1 50	
Waremen.....	2		1 25	
Washers.....	2		1 00	
Water boys.....	a2		50	

GLASS (WINDOW GLASS), OHIO.—ESTAB. No. 295.

Time, 10 hours per day; 180 days the past year.

Blowers.....	8		\$6 08	
Cutters.....	4		5 04	
Flatteners.....	2		6 31	
Gatherers.....	8		4 01	
Undesignated.....	24		2 25	

a Youth.

b Children.

c Blowers, gatherers, and flatteners worked 140 days.

GLASS (WINDOW GLASS), OHIO.—ESTAB. No. 296.

Time, 10 hours per day; (c) 168 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blowers.....	18		\$5 00	
Cutters.....	7		4 50	
Flatteners.....	4		5 50	
Gatherers.....	18		3 00	
Laborers.....	40		2 00	

GLASS (WINDOW GLASS), OHIO.—ESTAB. No. 297.

Time, 11 hours per day; 220 days the past year.

Blacksmith.....	1		\$2 00	
Blowers.....	11		4 50	
Box makers.....	2		2 00	
Coal wheeler.....	1		2 00	
Cutters.....	4		4 50	
Fillers-in.....	2		2 00	
Flatteners.....	3		4 50	
Gatherers.....	10		3 00	
Laborers.....	8		1 50	
Layers-out.....	8		2 00	
Leersmen.....	2		2 00	
Lime sifter.....	1		2 00	
Mixer.....	1		2 00	
Packer.....	1		2 00	
Roller boys.....	a4		75	
Teaser, master.....	1		4 00	
Teaser.....	4		2 00	

GLASS (TABLE WARE), OHIO.—ESTAB. No. 298.

Time, 10 hours per day; 240 days the past year.

Assorters.....		a18		\$0 50
Blacksmith.....	1		\$2 25	
Blowers.....	4		4 00	
Cutters.....	3		2 00	
Engravers.....	2		3 00	
Finishers.....	3		3 50	
Gatherers.....	16		3 00	
Laborers.....	2		1 25	
Leersmen.....	2		1 50	
Mixers.....	2		1 65	
Mould makers.....	7		4 00	
Packers.....	5		1 50	
Pressers.....	10		4 00	
Teasers.....	2		2 50	
Tender boys.....	a40		60	
Watchman.....	1		1 50	

GLASS (TABLE WARE), OHIO.—ESTAB. No. 299.

Time, 10 hours per day; — days the past year.

Carry-in boys.....	a19		\$0 70	
Finishers, bowl.....	19		3 50	
Finishers, foot.....	19		2 50	
Gatherers.....	19		2 20	
Pressers.....	19		4 00	
Turn-out boys.....	a19		90	
Warming-in boys.....	a95		50	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

GLASS (FLINT BOTTLES), PENNSYLVANIA.—ESTAB.
No. 300.

Time, 8 hours per day; 250 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blowers.....	45		\$4 00	
Laborers.....	12		1 50	
Mixers.....	2		2 00	
Mould cleaners.....	2		1 00	
Packers.....	5		1 50	
Teamsters.....	2		1 66	
Teasers.....	4		2 00	
Tender boys.....	a100		4	

GLASS (FLINT BOTTLES), PENNSYLVANIA.—ESTAB.
No. 301.

Time, 10 hours per day; 251 days the past year.

Blacksmith.....	1		\$2 00	
Blowers.....	30		4 50	
Engineer.....	4		2 25	
Laborers.....	4		1 25	
Mixers.....	2		2 00	
Mould cleaners.....	2		1 25	
Packers.....	6		1 67	
Pot maker.....	1		2 25	
Teamsters.....	2		2 00	
Teasers.....	2		1 71	
Tender boys.....	a60		1 50	
Waremen.....	2		1 25	

GLASS (FLINT BOTTLES), PENNSYLVANIA.—ESTAB.
No. 302.

Time, 10 hours per day; 260 days the past year.

Blacksmith.....	1		\$2 50	
Blowers.....	51		4 00	
Carpenter.....	1		2 00	
Carpenter's helper.....	1		1 50	
Engineer.....	1		2 25	
Foremen.....	2		3 00	
Gatherers.....	a2		66	
Laborers.....	12		1 25	
Mixers.....	3		1 50	
Mould makers.....	3		3 00	
Mould-makers' help- ers.....	1		1 50	
Packers.....	11		1 50	
Pot maker.....	1		3 00	
Pot-maker's helpers.....	3		1 50	
Pressers.....	2		3 00	
Stopper maker.....	1		7 00	
Stopper-maker's helpers.....	9		1 25	
Stopper-maker's helpers.....	6		80	
Teamsters.....	2		1 50	
Teasers.....	6		2 00	
Tender boys.....	a110		50	
Watchman.....	1		1 43	

GLASS (FLINT BOTTLES), PENNSYLVANIA.—ESTAB.
No. 303.

Time, 10 hours per day; 304 days the past year.

Blacksmith.....	1		\$2 66	
Blowers.....	21		4 75	
Mixers.....	2		1 66	

GLASS (FLINT BOTTLES), PENNSYLVANIA.—ESTAB.
No. 303—Concluded.

Time, 10 hours per day; 304 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Mould cleaners.....	1		\$1 25	
Packers.....	3		1 50	
Pot maker.....	1		5 00	
Teamsters.....	2		2 00	
Teasers.....	2		2 15	
Tender boys.....	a45		60	
Watchmen.....	2		2 15	

GLASS (FLINT BOTTLES), PENNSYLVANIA.—ESTAB.
No. 304.

Time, 10 hours per day; 285 days the past year.

Blacksmith.....	1		\$2 00	
Blowers.....	12		4 50	
Carpenter.....	1		2 25	
Laborers.....	2		1 25	
Mixer.....	1		2 75	
Mould cleaner.....	1		1 25	
Packers.....	3		2 00	
Teaser.....	1		2 75	
Tender boys.....	a24		60	

GLASS (GREEN BOTTLES), PENNSYLVANIA.—ESTAB.
No. 305.

Time, 10 hours per day; 208 days the past year.

Blacksmith.....	1		\$3 00	
Blowers.....	22		4 36	
Engineer.....	1		2 00	
Fillers-in.....	3		2 00	
Gatherers.....	a11		1 00	
Grinders.....	a6		70	
Laborers.....	3		1 25	
Master teaser.....	1		4 00	
Mixer.....	1		2 00	
Mould cleaner.....	1		1 50	
Packers.....	4		2 00	
Sand burner.....	1		3 00	
Teamster.....	1		2 00	
Teasers.....	3		2 00	
Tender boys.....	a40		65	
Waremen.....	2		1 10	
Watchman.....	1		1 50	

GLASS (GREEN BOTTLES), PENNSYLVANIA.—ESTAB.
No. 306.

Time, 10 hours per day; 224 days the past year.

Blacksmith.....	1		\$3 00	
Blowers.....	24		3 96	
Carpenter.....	1		2 50	
Engineers.....	2		2 33	
Foreman.....	1		5 00	
Laborers.....	6		1 25	
Mixers.....	2		1 47	
Packers.....	3		2 00	
Pot maker.....	1		3 00	
Pot-maker's helper.....	1		1 47	
Shearers.....	4		2 50	
Teasers.....	3		2 00	
Tender boys.....	a35		65	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 228.

GLASS (GREEN BOTTLES) PENNSYLVANIA.—ESTAB.
No. 307.

Time, 10 hours per day; 208 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$2 00	
Blowers	42		4 75	
Fillers-in	2		2 00	
Foreman	1		5 00	
Gatherers	16		1 00	
Laborers	6		1 25	
Master tesser	1		5 00	
Mixers	2		2 00	
Packers	7		2 00	
Teasers	3		2 00	
Tender boys	a50		66	
Watchmen	1		1 66	

GLASS (WINDOW GLASS) PENNSYLVANIA.—ESTAB.
No. 308.Time, 10 hours per day; 235 days the past year.^b

Blowers	16		\$5 46	
Box maker	1		2 50	
Carpenter	1		2 50	
Coal wheelers	2		1 50	
Cutters	6		4 16	
Fillers-in	6		1 66	
Flatteners	5		4 55	
Gatherers	16		3 55	
Laborers	2		1 50	
Layers-out	4		1 66	
Leermesmen	4		1 66	
Mixers	2		1 61	
Packers	2		1 66	
Pot maker	1		2 50	
Sand burner	1		1 50	
Teamster	1		1 66	
Teasers	6		1 43	

GLASS (WINDOW GLASS) PENNSYLVANIA.—ESTAB.
No. 309.Time, — hours per day; 234 days the past year.^c

Blacksmith	1		\$2 00	
Blowers	11		5 50	
Cutters	5		4 17	
Fillers-in	2		2 40	
Flatteners	3		4 33	
Gatherers	10		3 57	
Glass picker	1		1 25	
Laborers	2		1 25	
Layers-out	2		1 83	
Leermesmen	2		1 83	
Master tesser	1		4 28	
Mixer	1		2 00	
Packer	1		2 66	
Roller carrier	1		2 00	
Sand burner	1		2 00	
Teamster	1		2 00	
Teasers	3		1 71	
Watchman	1		1 57	

GLASS (PLATE GLASS) PENNSYLVANIA.—ESTAB. No.
310.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bricklayers	2		\$3 00	
Bricklayers' helpers	4		2 00	
Carpenters	2		2 00	
Cutters	6		3 00	
Engineers	2		2 50	
Firemen	2		2 00	
Foremen	5		4 00	
Furnacemen	4		2 50	
Laborers	226		1 75	
Laborers	150		1 50	
Mixers	4		2 50	
Packers	2		3 00	
Packers' helpers	6		1 75	
Pot-makers	3		3 00	
Pot-makers' helpers	6		1 75	

GLASS (LAMP CHIMNEYS, GLOBES) PENNSYLVANIA.—
ESTAB. No. 311.

Time, 10 hours per day; 276 days the past year.

Banders		2		\$1 00
Blacksmith				\$2 50
Blowers	74			4 00
Carrying-in boys	a3			80
Cleaning-off boys	a3			1 00
Crimping boys	a72			1 00
Cutters	3			2 50
Decorators	15	15		5 00
Drivers	2			2 00
Gatherers	78			2 00
Ground layers		4		1 50
Hold-mould boys	a3			1 00
Laborers	2			1 50
Leermesmen	2			2 00
Mixer	1			2 50
Mould cleaners	a2			75
Mould maker	1			2 50
Packers	8			2 50
Papering boys	a5			1 25
Snapping-up boy	a1			1 00
Teasers	2			2 50
Washers	1	6		1 00
Washer	a1			50
Watchmen	2			1 50

GLASS (LAMP CHIMNEYS) PENNSYLVANIA.—ESTAB.
No. 312.

Time, 10 hours per day; 300 days the past year.

Blowers	29			\$5 00
Finishers	43			5 00
Gatherers	43			3 00
Laborers	2			1 25
Leermesmen	5			1 25
Mould cleaners	3			1 25
Mould makers	6			4 00
Packers	5			5 00
Teasers	14			5 00
Teasers	4			2 35
Tender boys	a40			60

a Youth.

b Blowers and gatherers worked 196 days.

c Blowers and gatherers worked 195 days; teasers, 273 days.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

GLASS (TABLE WARE), PENNSYLVANIA.—ESTAB.
No. 313.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Assorters		a10		\$0 60
Blacksmith	1		\$2 33	
Cutters	3		2 50	
Engravers	4		4 00	
Finishers	10		5 00	
Gatherers	15		2 20	
Laborers	6		1 25	
Mixers	3		2 16	
Mould makers	6		3 33	
Packers	7		2 00	
Pressers	15		5 00	
Tender boys	a46		80	
Watchmen	2		1 71	

GLASS (TABLE WARE), PENNSYLVANIA.—ESTAB.
No. 314.

Time, 10 hours per day; 300 days the past year.

Blacksmith and en-				
gineer	1		\$2 66	
Carrying-in boys	a13		66	
Finishers, bowl	3		2 00	
Finisher, foot	1		1 66	
Furnaceman	1		2 21	
Gatherers	11		1 66	
Leersmen	4		1 66	
Mixers	2		1 71	
Mould cleaners	4		1 00	
Mould makers	7		3 33	
Packers	7		2 00	
Papering boys	a3		54	
Pressers	10		3 00	
Sticking-up boys	a6		91	
Teamsters	2		1 53	
Warehouse man	1		2 16	
Watchmen	2		1 71	

GLASS (FLINT BOTTLES), WEST VIRGINIA.—ESTAB.
No. 315.

Time, 10 hours per day; 258 days the past year.

Blacksmith	1		\$2 25	
Blowers	18		4 90	
Carrying-in boys	a6		50	
Carrying-over boys	a6		60	
Cleaning-off boys	a6		80	
Cutters	2		3 25	
Engravers	6		2 25	
Etchers	2		2 00	
Fire-in boys	a6		50	
Foreman	1		4 00	
Leersmen	2		1 66	
Mixers	2		1 66	
Mould boys	a6		60	
Packers	5	a1	1 50	\$0 50
Snap boys	a6		60	
Stopper maker	1		2 00	
Teamsters	2		1 66	
Teasers	2		1 75	
Undesignated	3		1 66	
Washer		a1		50
Watchmen	1		1 66	

JUTE GOODS (BAGS, BAGGING), CALIFORNIA.—Es-
TAB. No. 316.b

Time, 10½ hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Batcher	1		\$1 75	
Batcher	1		1 00	
Batchers	5		90	
Bobbin boys	a55		60	
Drawers	a7		50	
Engineer	1		4 40	
Fireman	1		2 40	
Laborer	1		1 04	
Machinists	3		2 50	
Machinist	1		2 20	
Machinists' helpers	2		1 00	
Overseers	2		3 60	
Overseer	1		2 25	
Repair hand	1		2 20	
Sewing-machine op-				
erators		24		1 00
Spinners		11		1 00
Sweeper	1		85	
Watchman	1		2 20	
Weavers		27		1 00
Wheelwright	1		4 20	

JUTE GOODS (JUTE, FLAX THREAD), NEW JERSEY.—
ESTAB. No. 317.

Time, 10 hours per day; 300 days the past year.

Batchers	7		\$1 30	
Carders		4		\$0 53
Carders	a25		70	
Doffers		a20		43
Drawers		12		76
Engineer	1		1 50	
Fireman	1		1 50	
Oilers	2		1 00	
Overseers	2		2 25	
Pressers	7		1 25	
Reelers		18		59
Rovers		8		79
Spinners		20		30
Tinsmith	a1		1 00	

JUTE GOODS (BAGGING), NEW YORK.—ESTAB. No.
318.

Time, 10 hours per day; 302 days the past year.

Band sewer	a1		\$0 67	
Batchers	7		1 50	
Bobbin boys	a3		67	
Bobbin boys	a3		50	
Breakers	3		1 17	
Bundler	1		2 00	
Calenderer	1		2 00	
Calenderers' helpers	a2		50	
Carders	9	9	83	\$0 53
Carpenter	1		2 50	
Carrier, cloth	1		1 00	
Carrier, cloth	a4		67	
Carrier, cloth	a1		50	
Carrier, spool	a1		67	
Cutters	2		1 67	

a Youth. b This does not include 150 Chinese, consisting of weavers, spinners, spoolers, and laborers, at an average of 80 cents per day.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

JUTE GOODS (HAGGING), NEW YORK.—ESTAB. No. 318—Concluded.

Time, 10 hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Darners		5		\$0 07
Dofers	a5	a23	\$0 67	50
Drawers		18		75
Drawers-in		2		75
Drawers-in helpers		a2		42
Dresser	1		2 25	
Elevator tender	1		1 00	
Engineer	1		3 50	
Firemen	2		1 83	
Foreman	5		3 00	
Foremen	3		2 50	
Foreman, assistant	1		2 17	
Foremen, assistant	2		2 00	
Foremen, assistant	3		1 50	
Handler, jute	1		1 33	
Handlers, jute	2		1 17	
Inspectors	2	3	1 58	83
Loom-fixers	4		2 25	
Machinist	1		3 00	
Machinist	1		2 50	
Machinist	1		2 33	
Machinist	1		1 83	
Machinists' helpers	a3		67	
Mangler	1		2 25	
Mangler's helpers	2		1 17	
Mangler's helper	1		1 00	
Measurer		1		1 00
Measurer	1		1 25	
Oiler	1		1 33	
Oilers	2		1 00	
Packers		2		1 21
Piecers		a4		58
Pressers	2		1 50	
Pressers' helpers	a3		67	
Reelers	10		1 17	
Rowers		8		1 00
Sewing-machine operators		9		92
Spare hands		a2		88
Spinners	23		1 17	
Spinners	6		1 83	
Strippers	2		1 33	
Sweepers	a2		58	
Sweepers	a4		50	
Trimmers		a3		58
Turners	2		1 33	
Twisters		a2		58
Warehouse men	3		1 75	
Warper	1		1 33	
Warpers	2		1 17	
Warpers		5		1 00
Warper	1		1 00	
Warper	1		83	
Watchman	1		2 58	
Weavers		95		75
Winders		20		75
Winders		a19		58

LEATHER (SOLE LEATHER), CALIFORNIA.—ESTAB. No. 319.

Time, 10 hours per day; 300 days the past year.

Bark grinder	1		\$1 20
Beamsmen	1		1 60
Engineer	1		1 40
Foreman	1		3 00
Foreman, assistant	1		1 00

LEATHER (SOLE LEATHER), CALIFORNIA.—ESTAB. No. 319—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Laborers	8		\$1 20	
Roller	1		1 80	
Watchman	1		1 00	

LEATHER (SOLE LEATHER), CALIFORNIA.—ESTAB. No. 320.

Time, 10 hours per day; 300 days the past year.

Bark grinders	2		\$2 00
Beamsmen	11		2 40
Curriers	15		2 40
Engineer	1		4 00
Engineer's assistant	1		2 75
Foremen	2		2 75
Laborers	14		2 00
Rollers	2		2 75
Teamster	1		2 25
Watchman	1		2 25

LEATHER (SOLE LEATHER), CALIFORNIA.—ESTAB. No. 321.

Time, 10 hours per day; — days the past year.

Beamsmen	5		\$2 17
Brushers	2		2 00
Dampener	1		2 00
Engineer	1		2 66
Finisher	1		2 66
Laborers	5		2 00
Oiler	1		2 00
Undesignated	a2		1 83

LEATHER (SOLE LEATHER), CALIFORNIA.—ESTAB. No. 322.

Time, 10 hours per day; 300 days the past year.

Beamsmen	8		\$2 25
Curriers	10		2 50
Engineer and fireman	1		3 00
Laborers	10		2 00
Pullers	25		2 00
Pullers' helpers	12		1 50

LEATHER (MOROCCO), DELAWARE.—ESTAB. No. 323.

Time, 10 hours per day; 288 days the past year.

Beamsmen	23		\$1 67
Colorers	12		1 66
Engineer	1		2 00
Finishers	156		1 66
Finishers	a27		67
Stock-room hands	8		2 00
Sewers		11	\$1 17
Shavers	13		3 33
Tanners	23		1 67

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

LEATHER (MOROCCO), DELAWARE.—ESTAB. No. 324.

Time, 10 hours per day; 288 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beamsmen	8		\$1 75	
Colorers	2		1 58	
Colorer	a1		75	
Engineer	1		1 67	
Finishers	20		1 83	
Finishers	a19		62	
Shavers	3		2 42	
Shaver	a1		67	
Sewers		3		\$1 00
Teamster	1		1 33	
Tanners	7		1 69	
Tanner	a1		75	

LEATHER (PATENT LEATHER), DELAWARE.—ESTAB. No. 325.

Time, 10 hours per day; — days the past year.

Beamsmen	7		\$2 50	
Curriers	7		3 50	
Finishers	8		2 50	
Laborers	37		1 50	

LEATHER (MOROCCO), MASSACHUSETTS.—ESTAB. No. 326.

Time, 10 hours per day; 308 days the past year.

Beamsmen	10		\$1 60	
Finishers	6		2 50	
Finishers	6		2 25	
Finishers	15		2 00	
Finishers	13		1 83	
Tanners	10		1 53	
Undesignated	65		1 25	

LEATHER (SOLE LEATHER), PENNSYLVANIA.—ESTAB. No. 327.

Time, 12 hours per day; 300 days the past year.

Beamsman	1		\$1 33	
Beamsman	1		1 25	
Tanner	1		2 00	
Undesignated	7		1 00	

LEATHER (MOROCCO), PENNSYLVANIA.—ESTAB. No. 328.

Time, 10 hours per day; 300 days the past year.

Apprentices	7		\$1 25	
Beamsmen	28		2 15	
Finishers	45		2 58	
Foreman	1		4 50	
Foreman	1		3 80	
Sewers		10		\$1 66
Shavers	9		3 75	
Tanners	8		2 15	
Tanners	10		1 66	
Teamster	1		2 00	

LEATHER (MOROCCO), PENNSYLVANIA.—ESTAB. No. 329.

Time, 10 hours per day; 280 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beamsmen	10		\$2 15	
Colorer	1		1 70	
Finishers	32		2 50	
Pebblers	5		1 70	
Putters-out	2		1 70	
Sewers		4		\$1 33
Shavers	5		3 00	
Tanners	8		1 80	
Valve boy	a1		67	

LEATHER (HARNESS LEATHER), PENNSYLVANIA.—ESTAB. No. 330.

Time, 10 hours per day; 300 days the past year.

Beamsmen	5		\$1 80	
Engineer	1		2 00	
Finishers	31		1 60	
Foremen	8		3 75	
Laborers	24		1 20	
Liquor man	1		1 50	
Shavers	3		3 00	
Stock-room hands	2		1 50	
Teamster	1		2 00	
Watchman	1		1 50	

LINEN (YARN, NUMBER 36 ENGLISH), BELGIUM.—ESTAB. No. 331.

Time, 12½ hours per day; — days the past year.

Beamers and fillers ..	36		\$0 50	
Bundlers	16		66	
Carders, tow		35		\$0 40
Dressers	40		52	
Dryers	15		66	
Engineers and firemen ..	12		66	
Hacklers	b72		22	
Overseers (overlookers) ..	16		1 00	
Overseers' assistants (overlookers) ..	15		66	
Overseers' assistants ..	14		28	
Preparers	b94		30	
Preparers	b10		70	
Reelers	140		40	
Reelers	b20		20	
Rovers	48		40	
Spinners	270		40	
Spinners	a110		31	
Spinners	b103		28	
Spraders	30		38	
Undesignated	17	23	50	35
Warehouse hands	29		48	
Warehouse hands	a17		43	
Warehouse hands	b8		20	
Workshop hands	60		30	
Workshop hands	a12		23	

a Youth.

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 148 to 226.

LETEX (DAMASK), GREAT BRITAIN.—ESTAB. NO. 332.

Time, 10 hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beamers and warpers	2	11	\$0 80	\$0 40
Card cutters	4	11	38	40
Inspectors and pickers	7	17	65	30
Designers	4	1	60	82
Drawers	1	4	46	29
Dressers	10		75	
Finishers and lapers	21	10	71	30
Firemen	3		87	
Harness repairers	13		43	
Joiners	4		1 05	
Repair hands	12		84	
Tenters	20		82	
Undesignated	10	9	51	43
Weavers	1	422	74	36
Winders	3	114	80	39

LIQUORS AND BEVERAGES (DISTILLED LIQUORS), ILLINOIS.—ESTAB. NO. 336.

Time, 12 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Ash wheeler	1		\$1 50	
Cooper	1		3 00	
Coopers	4		2 15	
Engineers	3		2 85	
Firemen	4		2 00	
Maltsters	6		1 75	
Mash hands	3		2 00	
Miller	1		3 00	
Rectifier	1		2 00	
Stablemen	12		1 50	
Watchmen	2		2 00	
Yard hands	3		1 50	
Yeast maker	1		5 00	

LIQUORS AND BEVERAGES (DISTILLED LIQUORS), ILLINOIS.—ESTAB. NO. 337.

Time, 12 hours per day; 313 days the past year.

Beer runner	1		\$2 00	
Carpenter	1		2 25	
Charcoal hand	1		1 67	
Coopers	2		1 83	
Engineer	1		4 17	
Firemen	4		2 00	
Foreman	1		3 00	
Laborers	6		1 67	
Mash hands	3		1 75	
Meal man	1		1 75	
Miller	1		3 00	
Mill hand	1		1 67	
Spirit runners	2		2 91	
Watchman	1		1 71	
Yeast maker	1		2 33	

LIQUOR AND BEVERAGES (DISTILLED LIQUORS), ILLINOIS.—ESTAB. NO. 338.

Time, 12 hours per day; 284 days the past year.

Beer runners	2		\$3 00	
Carpenters	2		2 50	
Charcoal hand	1		2 33	
Coopers	6		1 83	
Dry gauger	1		3 67	
Firemen	10		2 00	
Foremen	2		3 67	
Foreman	1		3 00	
Laborers	4		2 00	
Maltsters	3		1 83	
Millers	3		2 67	
Mill hands	10		2 17	
Spirit runners	2		3 50	
Teamster	1		2 50	
Watchman	1		1 71	

LIQUORS AND BEVERAGES (MALT LIQUORS), OHIO.—ESTAB. NO. 339.

Time, 12 hours per day; 300 days the past year.

Brewers	45		\$2 10	
Teamsters	25		2 04	

LIQUORS AND BEVERAGES (MALT LIQUORS), ILLINOIS.—ESTAB. NO. 333.

Time, 12 hours per day; 300 days the past year.

Bottlers	6		\$1 72	
Brewers	30		2 30	
Cooper	1		2 50	
Engineers	2		3 20	
Firemen	2		1 92	
Foreman	1		6 00	
Laborers	3		1 72	
Stablemen	2		1 54	
Teamsters	12		2 12	

LIQUORS AND BEVERAGES (MALT LIQUORS), ILLINOIS.—ESTAB. NO. 334.

Time, 12 hours per day; 300 days the past year.

Brewers	2		\$2 50	
Brewer	1		2 13	
Engineer	1		1 92	
Foreman	1		4 00	
Maltsters	2		1 92	
Teamsters	2		1 73	

LIQUORS AND BEVERAGES (MALT LIQUORS), ILLINOIS.—ESTAB. NO. 335.

Time, 12 hours per day; 313 days the past year.

Bottlers	10		\$1 25	
Brewers and maltsters	20		2 00	
Engineer	1		3 00	
Engineer	1		2 00	
Firemen	2		1 50	
Foreman	1		5 00	
Teamsters	6		1 75	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, page 143 to 229.

LIQUORS AND BEVERAGES (MALT LIQUORS), OHIO.—
ESTAB. No. 340.

Time, 12 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Brewers.....	6	.....	\$2 28	.....
Engineer.....	1	.....	3 84	.....
Engineer.....	1	.....	2 88	.....
Engineer.....	1	.....	2 28	.....
Firemen.....	3	.....	2 28	.....
Laborers.....	30	.....	2 00	.....
Teamsters.....	10	.....	2 88	.....

LIQUORS AND BEVERAGES (MALT LIQUORS), OHIO.—
ESTAB. No. 341.

Time, 12 hours per day; — days the past year.

Bottlers.....	26	.....	\$0 83	.....
Brewers.....	20	.....	2 00	.....
Engineer and fireman	1	.....	2 00	.....
Foreman.....	1	.....	2 00	.....
Teamsters.....	8	.....	2 00	.....

LIQUORS AND BEVERAGES (DISTILLED LIQUORS),
OHIO.—ESTAB. No. 342.

Time, 12 hours per day; 300 days the past year.

Beer runner.....	1	.....	\$1 50	.....
Corn sheller.....	1	.....	1 25	.....
Distiller.....	1	.....	6 00	.....
Dry gauger.....	1	.....	1 50	.....
Engineer.....	1	.....	2 00	.....
Fireman.....	1	.....	1 50	.....
Fermenting-room hand.....	1	.....	1 00	.....
Maltster.....	1	.....	2 00	.....
Mash hand.....	1	.....	1 50	.....
Meal man.....	1	.....	1 25	.....
Miller.....	1	.....	2 00	.....
Teamsters.....	2	.....	1 25	.....

LIQUORS AND BEVERAGES (MALT LIQUORS), PENN-
SYLVANIA.—ESTAB. No. 343.

Time, 10 hours per day; 300 days the past year.

Brewers.....	6	.....	\$2 50	.....
Foreman.....	1	.....	3 00	.....
Laborers.....	6	.....	2 00	.....
Laborers.....	4	.....	1 66	.....
Laborers.....	50	.....	1 50	.....
Laborers.....	25	.....	1 25	.....
Maltsters.....	6	.....	2 00	.....
Teamsters.....	4	.....	2 00	.....

LUMBER (STAVES, HEADINGS), ARKANSAS.—ESTAB.
No. 344.

Time, 10 hours per day; 201 days the past year.

Engineers.....	2	.....	\$3 00	.....
Foreman.....	1	.....	2 00	.....
Joiners.....	4	.....	2 25	.....
Laborers.....	20	.....	1 50	.....
Sawyers.....	2	.....	2 25	.....

LUMBER (SAWED LUMBER), ILLINOIS.—ESTAB. No.
345.

Time, 11 hours per day; 220 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Edgers.....	2	.....	\$3 13	.....
Engineers.....	3	.....	3 83	.....
Flers.....	4	.....	3 25	.....
Firemen.....	6	.....	1 50	.....
Laborers.....	80	.....	1 40	.....
Machinists.....	2	.....	2 63	.....
Millwrights.....	4	.....	2 85	.....
Pilers and wheelers..	80	.....	1 50	.....
Sawyers.....	4	.....	3 00	.....
Setters.....	2	.....	2 00	.....
Trimmers.....	8	.....	1 56	.....

LUMBER (SAWED AND PLANED LUMBER, LATH,
SHINGLES), ILLINOIS.—ESTAB. No. 346.

Time, 11 hours per day; 220 days the past year.

Blacksmiths.....	4	.....	\$2 25	.....
Edgers.....	3	.....	2 50	.....
Engineers.....	2	.....	3 50	.....
Flers.....	5	.....	2 50	.....
Firemen.....	6	.....	1 75	.....
Foreman.....	2	.....	4 00	.....
Foreman.....	1	.....	2 00	.....
Loaders.....	63	.....	1 84	.....
Laborers.....	95	.....	1 56	.....
Laborers.....	30	.....	1 45	.....
Laborers.....	60	.....	1 25	.....
Millwrights.....	2	.....	3 50	.....
Millwright.....	1	.....	3 00	.....
Oiler.....	1	.....	1 75	.....
Planers.....	17	.....	1 00	.....
Sawyers.....	5	.....	3 60	.....
Shingle and lath makers.....	33	.....	1 37	.....
Truckers and pilers..	66	.....	1 36	.....

LUMBER (SAWED LUMBER), MAINE.—ESTAB. No.
347.

Time, 10½ hours per day; — days the past year.

Laborers.....	30	.....	\$1 50	.....
Loggers.....	5	.....	2 00	.....
Log pilers.....	10	.....	1 75	.....
Mill men.....	12	.....	1 75	.....
Mill men.....	18	.....	2 00	.....
Rafters.....	15	.....	2 00	.....
Saw flers.....	3	.....	2 50	.....
Sawyers.....	2	.....	3 00	.....
Sawyers.....	5	.....	2 00	.....

LUMBER (SAWED LUMBER), MICHIGAN.—ESTAB.
No. 348.

Time, 11 hours per day; 175 days the past year.

Blacksmith.....	1	.....	\$2 25	.....
Boom men.....	2	.....	1 50	.....
Edgers.....	2	.....	1 75	.....
Engineer.....	1	.....	4 75	.....
Engineer.....	1	.....	2 25	.....
Fireman.....	1	.....	2 25	.....
Fireman.....	1	.....	3 00	.....
Laborers.....	55	.....	1 40	.....
Log jacker.....	1	.....	9 63	.....

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

LUMBER (SAWED LUMBER), MICHIGAN.—ESTAB. No. 348.—Concluded.

Time, 11 hours per day; 175 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Millwright	1	.....	\$2 25	.....
Saw fliers	2	.....	4 50	.....
Sawyers	2	.....	8 25	.....
Sawyer	1	.....	2 75	.....
Sawyer	1	.....	2 00	.....
Sawyers	5	.....	1 75	.....
Teamster	1	.....	1 60	.....
Trimmers	5	.....	1 75	.....
Watchman	1	.....	1 63	.....

LUMBER (SAWED LUMBER), WEST VIRGINIA.—ESTAB. No. 349.

Time, 10 hours per day; — days the past year.

Choppers	4	.....	\$1 10	.....
Dust roller	1	.....	1 00	.....
Edger	1	.....	1 25	.....
Fireman and engineer	1	.....	1 25	.....
Loaders	2	.....	1 10	.....
Loggers	6	.....	1 10	.....
Lumber bearers	2	.....	1 10	.....
Ratchet worker	1	.....	1 25	.....
Road makers	2	.....	1 10	.....
Sawyer	1	.....	2 75	.....
Stackers	2	.....	1 10	.....

LUMBER (SAWED LUMBER), WEST VIRGINIA.—ESTAB. No. 350.

Time, 10 hours per day; 300 days the past year.

Edgers	2	.....	\$1 25	.....
Fireman	1	.....	1 25	.....
Laborers	4	.....	1 25	.....
Lumber pilers	3	.....	1 25	.....
Sawyer	1	.....	2 00	.....
Watchman	1	.....	1 00	.....

MACHINES AND MACHINERY (BOILERS, ENGINES), CALIFORNIA.—ESTAB. No. 351.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	6	.....	\$3 75	.....
Blacksmiths' helpers	6	.....	2 25	.....
Boiler makers	15	.....	8 25	.....
Boiler-makers' helpers	10	.....	2 00	.....
Laborers	10	.....	2 00	.....
Machinists	6	.....	2 00	.....
Moulders	20	.....	3 50	.....
Moulders' helpers	10	.....	2 15	.....
Pattern makers	8	.....	3 50	.....

MACHINES AND MACHINERY (BOILERS, ENGINES), CALIFORNIA.—ESTAB. No. 352.

Time, 10 hours per day; — days the past year.

Boiler makers	3	.....	\$4 25	.....
Boiler-makers' helpers	4	.....	2 00	.....
Carpenter	1	.....	3 50	.....

MACHINES AND MACHINERY (BOILERS, ENGINES), CALIFORNIA.—ESTAB. No. 352.—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineer	1	.....	\$3 00	.....
Laborers	2	.....	2 00	.....
Machinists	4	.....	3 00	.....
Watchman	1	.....	1 75	.....

MACHINES AND MACHINERY (BOILERS, ENGINES), CALIFORNIA.—ESTAB. No. 353.

Time, 10 hours per day; — days the past year.

Apprentices	a10	.....	\$1 33	.....
Apprentice	a1	.....	1 50	.....
Apprentices	a10	.....	1 00	.....
Apprentices	a30	.....	67	.....
Belt fixer	1	.....	2 00	.....
Blacksmiths	4	.....	8 50	.....
Blacksmith	1	.....	3 25	.....
Blacksmiths	3	.....	3 00	.....
Blacksmith	1	.....	2 50	.....
Blacksmith	1	.....	2 00	.....
Blacksmiths' helper	1	.....	2 50	.....
Blacksmiths' helpers	15	.....	2 25	.....
Blacksmiths' helpers	10	.....	1 67	.....
Boiler makers	2	.....	8 50	.....
Boiler makers	8	.....	3 25	.....
Boiler maker	1	.....	3 00	.....
Boiler makers	8	.....	2 75	.....
Carpenters	2	.....	3 50	.....
Carpenter	1	.....	3 00	.....
Carpenters	2	.....	2 50	.....
Carpenter	1	.....	2 25	.....
Caulkers	2	.....	3 25	.....
Core makers	2	.....	8 75	.....
Core maker	1	.....	8 50	.....
Core makers	2	.....	2 75	.....
Core makers	3	.....	2 50	.....
Chipper	1	.....	2 50	.....
Chippers	2	.....	2 25	.....
Chipper	1	.....	2 00	.....
Chippers	3	.....	1 75	.....
Cranemen	4	.....	2 00	.....
Cranemen	2	.....	1 75	.....
Draughtsman	1	.....	4 50	.....
Draughtsman	1	.....	4 25	.....
Draughtsmen	2	.....	4 00	.....
Draughtsman	1	.....	3 50	.....
Draughtsmen	3	.....	2 50	.....
Draughtsman	1	.....	1 33	.....
Engineer	1	.....	8 00	.....
Foreman	1	.....	8 00	.....
Foreman	1	.....	6 00	.....
Foremen	3	.....	5 50	.....
Foremen	2	.....	4 50	.....
Foreman	1	.....	4 25	.....
Foremen	3	.....	4 00	.....
Foreman	1	.....	3 00	.....
Foreman	1	.....	2 50	.....
Flange turner	1	.....	3 50	.....
Laborers	5	.....	2 00	.....
Laborers	54	.....	1 75	.....
Laborer	1	.....	1 50	.....
Machinists	2	.....	4 00	.....
Machiniste	3	.....	3 75	.....
Machiniste	6	.....	3 50	.....
Machiniste	20	.....	3 25	.....
Machiniste	8	.....	3 00	.....
Machiniste	10	.....	2 75	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

MACHINES AND MACHINERY (BOILERS, ENGINES), CALIFORNIA.—ESTAB. No. 353—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Machinists.....	7		\$2 50	
Machinists.....	8		2 00	
Machinists' helpers.....	8		2 50	
Machinists' helpers.....	7		2 25	
Machinists' helpers.....	2		2 00	
Machinists' helpers.....	13		1 67	
Machinists' helpers.....	15		1 33	
Machinists' helpers.....	13		1 00	
Machinists' helpers.....	a12		67	
Melter.....	1		8 00	
Moulders.....	2		3 75	
Moulders.....	4		3 50	
Moulders.....	23		3 25	
Oilier.....	1		2 50	
Painter.....	1		2 25	
Pattern maker.....	1		4 00	
Pattern makers.....	3		3 50	
Packers makers.....	12		3 25	
Pattern maker.....	1		2 50	
Pattern-makers' help- ers.....	2		2 50	
Plate worker.....	1		3 50	
Plate workers.....	6		3 25	
Plate workers.....	4		3 00	
Plate-workers' helper.....	1		2 50	
Plate-workers' help- ers.....	11		2 25	
Plate-workers' help- ers.....	8		2 00	
Riggers.....	5		2 00	
Sweeper.....	1		3 00	
Sweepers.....	3		1 75	
Ship carpenters.....	5		4 00	
Ship carpenter.....	1		3 75	
Ship carpenter.....	1		3 50	
Ship carpenter.....	1		2 50	
Teamsters.....	2		3 00	
Teamster.....	1		2 25	
Teamsters.....	2		3 00	
Watchman.....	1		2 75	
Watchman.....	1		2 25	
Watchmen.....	3		3 00	
Weighter.....	1		3 75	

MACHINES AND MACHINERY (SEWING MACHINES), ILLINOIS.—ESTAB. No. 354.

Time, 10 hours per day; 285 days the past year.

Adjuster.....	1		\$3 00	
Adjuster.....	1		2 50	
Adjusters.....	2		2 00	
Fitters.....	14		1 95	
Fitters.....	8		1 75	
Fitters.....	4		1 45	
Fitters.....	a2		1 00	
Fitters.....	a2		60	
Foreman.....	1		3 25	
Foremen.....	2		2 25	
Japanner.....	1		3 00	
Japanners.....	2		2 25	
Japanner.....	1		1 00	
Japanners.....	a2		75	
Laborer.....	1		1 75	
Laborers.....	10		1 50	

MACHINES AND MACHINERY (SEWING MACHINES), ILLINOIS.—ESTAB. No. 354—Concluded.

Time, 10 hours per day; 285 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Laborers.....	4		\$1 00	
Laborers.....	a5		75	
Laborers.....	a3		50	
Machine hands.....	3		1 75	
Machine hands.....	9		1 50	
Machine hands.....	14		1 25	
Machine hands.....	3		1 00	
Machine hands.....	a4		60	
Nickel plater.....	1		1 85	
Polishers.....	3		2 25	
Polisher.....	1		3 00	
Polisher.....	a1		1 15	
Screw maker.....	1		3 00	
Tool makers.....	2		3 25	
Tool makers.....	6		2 40	
Tool makers.....	2		1 75	
Tool maker.....	a1		1 15	

MACHINES AND MACHINERY (BOILERS), INDIANA.—ESTAB. No. 355.

Time, 10 hours per day; 120 days the past year.

Apprentice.....	a1		\$0 75	
Boiler makers.....	4		2 50	
Boiler-makers' help- ers.....	2		1 25	

MACHINES AND MACHINERY (BOILERS, ENGINES), INDIANA.—ESTAB. No. 356.

Time, 10 hours per day; 300 days the past year.

Blacksmiths.....	15		\$3 50	
Boiler makers.....	100		3 00	
Carpenters.....	3		2 00	
Laborers.....	67		1 40	
Machinists.....	296		2 50	
Moulders.....	13		2 50	
Pattern makers.....	4		3 50	

MACHINES AND MACHINERY (ENGINES, SHAFTING, ETC.), INDIANA.—ESTAB. No. 357.

Time, 10 hours per day; 300 days the past year.

Apprentices, mould- ers'.....	a2		\$0 75	
Apprentice, mould- ers'.....	a1		1 25	
Blacksmiths.....	2		2 75	
Blacksmiths' helper.....	1		1 50	
Cupola man.....	1		1 50	
Engineer.....	1		1 50	
Laborer.....	1		1 50	
Machinists.....	10		2 00	
Machinists.....	a1		1 00	
Millwrights.....	4		2 50	
Moulders.....	3		2 40	
Pattern makers.....	2		2 50	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 148 to 226.

MACHINES AND MACHINERY (PORTABLE ENGINES, FARM MACHINERY), INDIANA.—ESTAB. NO. 358.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	8		\$2 20	
Blacksmiths' helpers	8		1 85	
Boiler makers	10		2 00	
Burr makers	2		2 80	
Draughtsmen	3		3 50	
Engineer	1		2 10	
Grinders	2		1 50	
Laborers	32		1 15	
Laborers	a14		50	
Machinists	43		2 80	
Millwrights	12		2 10	
Moulders	15		2 20	
Pattern makers	4		3 00	
Pipe cutters	3		1 75	
Sheet-iron workers	4		2 00	

MACHINES AND MACHINERY (MISCELLANEOUS MACHINERY), INDIANA.—ESTAB. NO. 359.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	4		\$2 60	
Carpenters	4		2 50	
Laborers	10		1 80	
Machinists	22		2 20	
Moulders	12		3 20	
Pattern makers	3		2 50	

MACHINES AND MACHINERY (ENGINES), KENTUCKY.—ESTAB. NO. 360.

Time, 10 hours per day; 300 days the past year.

Apprentices	a2		\$1 00	
Apprentices	a4		80	
Blacksmiths	2		3 00	
Blacksmiths	4		2 50	
Blacksmiths' helpers	8		1 85	
Blacksmiths' helpers	2		1 00	
Cipolamen	1		2 50	
Iron breakers	3		1 50	
Laborers	20		1 25	
Machinists	2		3 50	
Machinists	3		3 00	
Machinists	3		3 75	
Machinists	20		3 00	
Machinists	15		1 75	
Machinists' helpers	10		1 75	
Moulders	5		2 75	
Moulders	5		2 00	
Moulders' helpers	6		1 00	
Pattern makers	6		2 50	

MACHINES AND MACHINERY (STATIONARY ENGINES), MAINE.—ESTAB. NO. 361.

Time, 10 hours per day; — days the last year.

Apprentices	a5		\$0 85	
Blacksmiths	2		2 25	
Blacksmith's helper.	1		1 83	

MACHINES AND MACHINERY (STATIONARY ENGINES), MAINE.—ESTAB. NO. 361—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineer	1		\$1 75	
Furnace man	1		2 00	
Machinists	10		2 50	
Machinists' helpers	2		1 83	
Moulders	13		2 50	
Moulders	5		2 00	
Moulders' helpers	8		1 33	
Mounters	6		1 40	
Pattern maker	1		2 25	
Undesignated	1		85	
Wood workers	2		2 25	

MACHINES AND MACHINERY (TEXTILE MACHINERY), MASSACHUSETTS.—ESTAB. NO. 363.

Time, 10 hours per day; 308 days the past year.

Machinists	150		\$2 25	
Machinists' helpers	100		1 25	
Wood workers	50		2 25	

MACHINES AND MACHINERY (WOOD-WORKING MACHINES), MASSACHUSETTS.—ESTAB. NO. 363.

Time, 10 hours per day; 308 days the past year.

Engineer	1		\$3 50	
Laborers	5		1 50	
Machinists	20		2 50	
Watchmen	2		1 75	
Wood workers	3		2 50	

MACHINES AND MACHINERY (STATIONARY ENGINES), NEW JERSEY.—ESTAB. NO. 364.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	3		\$3 06	
Laborers	45		1 45	
Machinists	65		2 35	
Moulders	30		2 64	
Pattern makers	14		2 44	

MACHINES AND MACHINERY (TEXTILE MACHINERY), PENNSYLVANIA.—ESTAB. NO. 365.

Time, 10 hours per day; — days the past year.

Apprentices	a40		\$0 66	
Foremen	6		3 00	
Laborers	75		1 25	
Laborers	25		1 10	
Machinists	25		2 50	
Machinists	100		2 00	
Machinists	150		1 66	
Undesignated	a50		50	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (PIG IRON), ALABAMA.—ESTAB. No. 366.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Breakers and loaders	10	.....	\$1 40	.....
Cast-house men	13	.....	1 10	.....
Cinder-men	10	.....	1 40	.....
Engineers	2	.....	2 00	.....
Fillers, top	4	.....	1 50	.....
Firemen	5	.....	1 25	.....
Foremen	2	.....	3 00	.....
Foremen	2	.....	1 50	.....
Iron carriers	4	.....	1 50	.....
Stock-house men	40	.....	1 10	.....
Stovemmen	2	.....	1 50	.....
Teamsters	2	.....	1 25	.....
Weighers	2	.....	1 50	.....

METALS AND METALLIC GOODS (PIG IRON), BELGIUM.—ESTAB. No. 367.a

Time, 24 hours per day (two turns); — days the past year.

Blacksmiths	4	.....	\$0 60	.....
Builders-up	550	.....	89	.....
Calciners	30	.....	70	.....
Chargers	15	.....	65	.....
Chargers	.....	21	.....	\$0 34
Carpenters	4	.....	60	.....
Coal carriers	2	.....	48	.....
Drivers	22	.....	44	.....
Dirt movers	5	.....	52	.....
Engineers	5	.....	80	.....
Fillers, bottom	.....	12	.....	32
Fillers, top	12	.....	65	.....
Firemen	5	.....	61	.....
Gallory cutters	25	.....	71	.....
Keepers	6	.....	1 00	.....
Keepers' helpers	18	.....	64	.....
Laborers	17	.....	55	.....
Laborers	12	.....	45	.....
Lamp carriers	68	.....	21	.....
Lamp tenders	6	.....	38	.....
Loaders	15	.....	54	.....
Miners	55	.....	73	.....
Miners	75	.....	40	.....
Roadmen	75	.....	59	.....
Screeners	2	.....	45	.....
Sorters	3	.....	45	.....
Stock-house men	24	.....	62	.....
Undesignated	532	.....	32	.....
Weighers	12	.....	66	.....

METALS AND METALLIC GOODS (BAR IRON), BELGIUM.—ESTAB. No. 368.

Time, 24 hours per day (two turns); — days the past year.

Foreman	1	.....	\$1 30	.....
Foremen	2	.....	1 00	.....
Foreman's assistant	1	.....	50	.....
Machinists	4	.....	40	.....
Machinists' helpers	6	.....	22	.....
Masons	2	.....	59	.....
Puddlers	28	.....	1 20	.....

a This establishment mines its own coal and makes coke. b Youth.

METALS AND METALLIC GOODS (BAR IRON), BELGIUM.—ESTAB. No. 369—Concluded.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Puddlers' helpers	58	.....	\$0 80	.....
Rollers	2	.....	85	.....
Rollers' helpers	8	.....	60	.....
Rollers' helpers	516	.....	24	.....
Shinglers	6	.....	1 00	.....
Weighers and laborers	15	.....	56	.....

METALS AND METALLIC GOODS (STEEL INGOTS), BELGIUM.—ESTAB. No. 369.

Time, 10½ hours per day; — days the past year.

Chemist	1	.....	\$0 65	.....
Chemist's assistant	1	.....	40	.....
Foreman	1	.....	1 10	.....
Laborers	80	.....	75	.....
Laborers	510	.....	27	.....
Melter	1	.....	1 10	.....
Melters' helpers	4	.....	52	.....

METALS AND METALLIC GOODS (STEEL PLATES), BELGIUM.—ESTAB. No. 370.

Time, 10½ hours per day; — days the past year.

Firemen	3	.....	\$0 70	.....
Foreman	1	.....	1 20	.....
Foreman	1	.....	1 00	.....
Hammerman	1	.....	1 50	.....
Hammerman's helper	1	.....	80	.....
Heaters	3	.....	1 40	.....
Heaters' helpers	3	.....	1 00	.....
Heaters' helpers	3	.....	70	.....
Hookers-up	2	.....	70	.....
Laborers	6	.....	60	.....
Machinist	1	.....	60	.....
Machinist	1	.....	50	.....
Marker	1	.....	1 20	.....
Roller, chief	1	.....	1 40	.....
Roller, second	1	.....	1 10	.....
Roller, third	1	.....	85	.....
Rollers, fourth	2	.....	70	.....
Shearman	1	.....	1 20	.....
Shearman's helper	1	.....	80	.....
Shearman's helpers	2	.....	70	.....
Shearman's helpers	7	.....	60	.....
Shearman's helpers	53	.....	34	.....
Sweeper	1	.....	52	.....
Sweeper's helper	1	.....	30	.....

METALS AND METALLIC GOODS (STEEL RAILS), BELGIUM.—ESTAB. No. 371.

Time, 10½ hours per day; — days the past year.

Bgggvmen	4	.....	\$0 60	.....
Foreman	1	.....	1 00	.....
Firemen	3	.....	70	.....
Firemen's helpers	2	.....	30	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES--Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (STEEL RAILS),
BELGIUM.—ESTAB. No. 371.—Concluded.

Time, 10½ hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Heaters	3		\$1 40	
Heaters' helpers	3		1 00	
Heaters' helpers	3		70	
Hookers-up (croche- teurs)	6		70	
Machinist	1		64	
Machinist	1		60	
Machinist	1		50	
Roller, chief	1		1 40	
Rollers, second	2		1 00	
Rollers, third	2		90	
Roll turner	1		64	
Straightener	1		80	
Straighteners	4		60	

METALS AND METALLIC GOODS (ELECTROTYPES),
CALIFORNIA.—ESTAB. No. 372.

Time, 10 hours per day; 300 days this year.

Engineer	1		\$2 00	
Finisher	1		3 33	
Finishers' helpers	11		1 25	
Moulders	3		3 00	

METALS AND METALLIC GOODS (IRON AND STEEL
BARS AND RAILS), CALIFORNIA.—ESTAB. No.
373.

Time, 10 hours per day; 280 days the past year.

Blacksmiths	18		\$3 25	
Carpenters	6		3 25	
Forgemen	18		3 00	
Machinists	67		3 25	
Mill hands	58		2 75	
Steel workers	41		2 75	
Yard hands	82		1 75	

METALS AND METALLIC GOODS (BARBED WIRE,
OTHER WIRE GOODS), CALIFORNIA.—ESTAB. No.
374.

Time, 10 hours per day; — days the past year.

Barb-fence maker	1		\$3 50	
Barb-fence makers	3		2 00	
Barb-fence makers	7		1 15	
Carpenters	5		3 00	
Carpenters' helpers	6		1 75	
Foreman	1		4 00	
Galvanizers	13		2 62	
Machinists	12		2 75	
Machinists' helpers	4		1 00	
Wire drawers	12		3 25	
Wire drawers	12		2 75	
Wire drawers	11		2 00	
Wire workers	20		3 00	
Wire-workers' help- ers	20		1 25	

METALS AND METALLIC GOODS (SHEET IRON),
DELAWARE.—ESTAB. No. 375.

Time, 10 hours per day; 258 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Annealer	1		\$1 85	
Annealer's helper	1		1 50	
Bundler	1		1 70	
Catchers	6		1 77	
Drag-outs	2		1 35	
Engineers	2		1 80	
Foreman	1		4 00	
Furnacemen	4		2 00	
Heaters	2		3 00	
Heaters' helpers	2		1 70	
Hookers-up	2		1 25	
Laborers	2		1 40	
Laborers	10		1 05	
Puddlers	6		2 50	
Puddlers' helpers	6		1 30	
Rollers	4		2 75	
Rollers	2		2 15	
Scrap man	1		1 50	
Spanner men	4		2 00	
Trimmer	1		3 00	

METALS AND METALLIC GOODS (PIG IRON), GREAT
BRITAIN.—ESTAB. No. 376.

Time, 24 hours per day (two turns); — days the past
year.

Blacksmiths	2		\$1 04	
Boiler cleaners	2		1 32	
Boiler makers	4		1 28	
Brakemen	6		1 02	
Bricklayers	2		1 20	
Bymen	10		84	
Carpenters	2		1 04	
Engine cleaners	3		60	
Engineers	3		1 20	
Engineers	6		84	
Engineers	3		1 13	
Fillers	22		1 26	
Fillers	30		1 08	
Fillers	3		84	
Fillers	6		76	
Firemen	5		80	
Holstmen	6		76	
Iron carriers	10		1 20	
Iron samplers	2		96	
Keepers	10		1 86	
Keepers' helpers	10		1 28	
Laborers	90		68	
Machinists	2		1 08	
Machine men	3		84	
Masons	2		1 20	
Moulder	1		1 08	
Ore dischargers	80		78	
Plate layers	6		72	
Road cleaners	2		64	
Slag tippers	4		84	
Spare brakemen	2		76	
Spare keepers	6		72	
Steam-crane men	2		84	
Stove cleaners	4		64	
Stovemmen	4		96	
Sweepers	6		60	
Tube cleaners	4		96	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (PIG IRON), GREAT BRITAIN.—ESTAB. No. 377.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Barrow runners	4		\$0 96	
Bollerman	1		1 00	
Droptman	1		98	
Dumpers	2		82	
Engineer	1	1 08		
Engineers	3		98	
Engineers	2	1 08		
Fillers, bottom	4		96	
Fillers, top	2		1 20	
Firemen	2		80	
Foreman	1	2 40		
Gasman	1		1 00	
Iron carriers	2		1 16	
Keepers	2		1 56	
Keepers' helpers	2		72	
Laborers	3		72	
Ore cleaner	1		90	
Slaggers	2		96	
Table loaders	2		1 00	
Table loader	1		98	
Truck emptiers	4		98	

METALS AND METALLIC GOODS (BAR IRON), GREAT BRITAIN.—ESTAB. No. 378.

Time, 12 hours per day; — days the past year.

Ashmen	8		\$0 96	
Ash-lift driver	1		96	
Bankmen	2		1 12	
Bar carriers	8		1 12	
Bar drawers	6		1 36	
Blacksmiths	7		1 20	
Blacksmiths' helpers	7		88	
Blooming men	4		80	
Boiler men	2		1 08	
Bricklayers	6		1 20	
Bricklayers' helpers	6		72	
Catchers, muck	12		1 20	
Catchers, rail	3		1 32	
Coal tippers	4		1 20	
Cutters-down	12		1 32	
Donkey man	1		1 12	
Drag-outs	2		1 20	
Engineers	3		1 08	
Engineers	3		96	
Fillers	2		1 12	
Firemen	8		80	
Foreman	1	3 20		
Foreman	1	2 40		
Foreman	1	2 00		
Foreman	1	1 92		
Foremen's assistants	2		1 44	
Furnace men	14		1 60	
Laborers	20		72	
Loaders	4		1 44	
Metal tippers	3		1 20	
Millwrights	10		90	
Painters	3		96	
Pilers, iron	7		1 08	
Puddlers	240		2 43	
Riggers	5		1 32	
Roll turners	2		1 36	
Rollers, forgo	2		2 16	
Roller, rail	1		4 80	
Roughers, forgo	12		1 36	

METALS AND METALLIC GOODS (BAR IRON), GREAT BRITAIN.—ESTAB. No. 378—Concluded.

Time, 12 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Roughers, rail	3		\$1 60	
Sawmen	2		1 20	
Scaler	1		1 20	
Shingler	1		3 60	
Shinglers, level hand	2		2 58	
Shinglers' helpers	9		1 52	
Straighteners	1		60	
Watchman	1		1 20	
Wheelers, coal	17		88	
Wheelers, fettling	6		68	
Wheelers, metal	17		1 12	
Wheelers, slag	6		58	

METALS AND METALLIC GOODS (CAST IRON), GREAT BRITAIN.—ESTAB. No. 379.

Time, 10 hours per day; — days the past year.

Annealer	1		\$1 20	
Cupola men	2		1 60	
Foreman	1		3 90	
Journeymen	12		2 30	
Scourer	a1		80	
Sorters		a2	\$0 50	
Underhands	12		1 00	

METALS AND METALLIC GOODS (STEEL PLATES), GREAT BRITAIN.—ESTAB. No. 380.

Time, 24 hours per day (two turns); — days the past year.

Melters	10		\$1 41	
Melters	16		1 06	
Melters' first helpers	10		85	
Melters' first helpers	16		67	
Melters' second helpers	16		76	
Melters' second helpers	16		58	
Pit men	10		85	
Pit men	16		67	
Weighers	3		72	

METALS AND METALLIC GOODS (BRASS CASTINGS), GREAT BRITAIN.—ESTAB. No. 381.

Time, 10 hours per day; — days the past year.

Casters	2		\$2 40	
Finishers	6		1 20	
Finishers	12		85	
Finishers	a6		45	
Foremen	3		2 60	
Foremen	3		2 00	
Lacquers		3	\$0 70	
Moulders	2		1 30	
Moulder's helper	1		85	
Moulders' helpers	a2		45	
Wrappers-up		2		45

a Youth.

b Employée in this establishment are not all reported.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (BRASS CASTINGS),
GREAT BRITAIN.—ESTAB. No. 382.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Adjuster	1		\$2 20	
Burnishers	2		1 77	
Caster	1		4 30	
Chaser	1		1 75	
Dipper	1		1 33	
Finishers	a3		80	
Finisher	a1		53	
Foremen	3		2 40	
Lacquers		2		\$0 80
Lathe men	3		1 55	
Moulder	1		1 70	

METALS AND METALLIC GOODS (BRASS CASTINGS),
GREAT BRITAIN.—ESTAB. No. 383.

Time, 10 hours per day; — days the past year.

Adjusters	b2		\$0 25	
Casters	3		2 30	
Core maker	1	1	1 05	\$0 70
Foreman	1		3 33	
Lathe men	4		2 20	
Lathe men	3		1 33	
Lathe men	5		95	
Moulders, brass	3		1 25	
Moulders' helper, brass			30	
Moulders' helper, brass	c1			
Moulders' helper, brass	a1		62	
Moulders' helper, brass	a1		80	
Vise boys	a6		33	

METALS AND METALLIC GOODS (NAILS), ILLINOIS.—
ESTAB. No. 384.

Time, 10 hours per day; — days the past year.

Annealer	1		\$1 25	
Blacksmith	1		3 70	
Blacksmiths	2		2 75	
Blacksmiths' helpers	3		1 30	
Blasers	2		2 30	
Blaser helpers	a2		85	
Baggymen	2		1 90	
Baggymen	2		1 35	
Bricklayer	1		2 80	
Carpenters	2		1 75	
Catchers, plate	d2		6 30	
Catchers, slab	2		2 00	
Chargers	10		1 40	
Engineers	4		1 65	
Firemen	4		1 55	
Furnace-door tenders	a4		70	
Heaters, plate	4		6 25	
Heaters, old rail	6		4 15	
Heaters' helpers, plate	4		2 50	
Heaters' helpers, old rail	6		1 80	
Hookers-up, plate	2		2 00	
Hookers-up, slab	4		1 50	
Laborers	32		1 25	
Machinists	5		1 65	
Machine tenders	4		2 00	

METALS AND METALLIC GOODS (NAILS), ILLINOIS.—
ESTAB. No. 384.—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Machine tenders	9		\$1 50	
Master mechanic	1		3 70	
Nailers	d9		11 15	
Nailers	d10		9 20	
Nailers	d20		6 70	
Nailers	d1		4 50	
Nail feeder	d6		3 50	
Nail feeders	d12		2 25	
Nail feeders	d78		1 70	
Packer	d5		10 65	
Packer's helpers	a15		1 50	
Picker boys	b18		85	
Picker boys	4		1 30	
Pilers, old rail	b4		1 50	
Pilers, scrap	2		11 65	
Rollers, plate	d2		6 30	
Rollers, slab				
Rollers' helpers, plate	d4		4 20	
Scrapers, plate	a2		85	
Shearman, plate	d1		12 00	
Shearman's helpers	2		2 75	
Shearman's helpers	15		1 50	
Shovers-under, plate	2		2 45	
Shovers-under, plate	4		1 87	
Telegraphmen	3		1 75	
Tenders, self-feeders	a57		1 85	
Warehouse men	3		1 85	
Watchmen	2		1 40	

METALS AND METALLIC GOODS (SPIKES, T RAILS),
ILLINOIS.—ESTAB. No. 385.

Time, 10 hours per day; 250 days the past year.

Blacksmiths	4		\$2 80	
Blacksmiths' helpers	4		1 80	
Bolt cutters	6		1 75	
Carpenter	1		2 00	
Catchers	4		3 50	
Engineers	6		2 80	
Firemen	6		1 80	
Foreman	1		4 33	
Foremen	2		3 00	
Gas makers	2		2 15	
Heaters	10		5 50	
Heaters' helpers	14		2 75	
Hookers-up	8		1 75	
Laborers	139		1 35	
Machinist	1		4 00	
Machinists	10		2 80	
Mason	1		5 00	
Nut cutters	2		1 50	
Nut maker	1		5 00	
Pattern maker	1		3 10	
Puddlers	6		4 00	
Puddlers' helpers	10		2 25	
Rollers	7		7 00	
Roll turners	3		3 30	
Roughers	11		3 50	
Scrapmen	4		1 25	
Shearmen	6		2 25	
Spike makers	6		2 50	
Strandsmen	8		2 00	
Teamsters	3		1 60	
Watchmen	3		1 55	

a Youth. b Children. c Child. d All nail mill employés work only 54 days per week.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (BAR AND PIG IRON), INDIANA.—ESTAB. No. 386.

Time, 10 hours per day; 200 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	2		\$2 00	
Blacksmiths' helpers	2		1 25	
Carpenters	2		1 80	
Catchers	2		3 75	
Crane tenders	2		1 80	
Engineers	6		1 75	
Fillers	10		1 35	
Firemen	2		1 20	
Gate-men	2		1 25	
Hammermen	2		4 00	
Heaters	4		4 50	
Heaters' helpers	9		1 80	
Keepers	2		1 85	
Keepers' helpers	2		1 40	
Laborers	53		1 20	
Machinists	2		3 00	
Masons	2		1 75	
Puddlers	32		4 00	
Puddlers' helpers	32		2 00	
Roller, guide	1		10 00	
Roller, bar	1		7 00	
Roller, muck	1		4 50	
Rollers' helpers	16		1 50	
Roll turner	1		3 00	
Roughers	6		3 75	
Shearmen	4		4 00	
Shearmen's helpers	7		1 50	
Teamsters	5		1 40	
Watchmen	2		1 35	
Warehouse men	3		1 50	

METALS AND METALLIC GOODS (STEEL RAILS), INDIANA.—ESTAB. No. 387.

Time, 10 hours per day; 200 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	3		\$2 00	
Blacksmiths' helpers	3		1 50	
Carpenters	3		2 25	
Engineers	3		2 50	
Firemen	4		1 60	
Heaters	8		4 00	
Laborers	70		1 50	
Laborers	30		1 00	
Machinists	17		2 00	
Moulders	11		2 25	
Pattern makers	2		2 25	
Roll hands	11		3 50	

METALS AND METALLIC GOODS (BAR AND PLATE IRON), KENTUCKY.—ESTAB. No. 388.

Time, 10 hours per day; 150 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Hammerman	1		\$6 00	
Heaters, bar	2		5 00	
Heaters, bloom and scrap	2		5 50	
Heater, 8-inch	1		4 75	
Heater, plate	1		5 00	
Heater, sheet	1		5 25	
Heater, slat	1		5 00	
Laborers	100		1 25	
Puddlers	60		3 75	
Puddlers' helpers	40		2 00	

METALS AND METALLIC GOODS (BAR AND PLATE IRON), KENTUCKY.—ESTAB. No. 388—Cont'd.

Time, 10 hours per day; 150 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Roller, bar	1		\$7 00	
Roller, 8-inch	1		6 00	
Roller, muck	1		4 00	
Roller, muck	1		3 50	
Roller, plate	1		9 00	
Roller, sheet	1		9 00	
Rollers' helpers, bar	10		2 00	
Rollers' helpers, eight-inch	6		2 25	
Rollers' helpers, muck	6		2 00	
Rollers' helpers, plate	7		2 25	
Rollers' helpers, sheet	5		2 25	

METALS AND METALLIC GOODS (BAR AND PLATE IRON), KENTUCKY.—ESTAB. No. 389.

Time, 10 hours per day; 213 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$3 00	
Blacksmith	1		2 50	
Blacksmiths' helpers	2		1 50	
Bricklayer	1		3 50	
Bricklayer's helper	1		1 50	
Bundler	1		3 00	
Bundler's helper	1		1 25	
Carpenter	1		1 65	
Cart driver	1		2 50	
Catcher, bar	1		4 00	
Catcher, plate	1		3 00	
Catcher, sheet	1		2 75	
Catchers' helpers	3		2 00	
Catchers' helpers	2		1 40	
Engineer	1		2 25	
Engineers	4		1 00	
Firemen	3		1 50	
Hammermen	3		5 50	
Hammermen's helpers	3		2 00	
Heater, plate	1		6 00	
Heater, 10-inch	1		7 00	
Heater, 8-inch	1		6 00	
Heater, sheet	1		6 00	
Heater, bar	1		4 25	
Heater's helper	1		3 75	
Heater's helper	1		2 60	
Heater's helper	1		1 65	
Knobblers	5		4 00	
Laborers	14		1 50	
Laborers	23		1 25	
Laborers	5		1 00	
Laborers	23		75	
Laborers	27		53	
Machinist	1		2 50	
Millwright	1		5 00	
Millwright's helper	1		1 50	
Pattern maker	1		2 50	
Piler, plate	1		4 00	
Piler, plate	1		1 50	
Pilers, plate	2		1 25	
Puddlers	22		3 25	
Puddler	1		2 50	
Puddlers' helpers	22		2 00	
Puddlers' helpers	22		1 25	
Roller, sheet	1		9 25	
Roller, plate	1		6 50	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (BAR AND PLATE IRON), KENTUCKY.—ESTAB. No. 389—Concl'd.

Time, 10 hours per day; 213 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Roller, 10-inch	1		\$8 50	
Roller, 8-inch	1		8 50	
Rollers, muck	2		5 00	
Rollers, bar	1		4 25	
Rollers' helpers	10		2 00	
Roll turner	1		7 00	
Rougher, plate	1		3 00	
Rougher, sheet	1		3 00	
Rougher, bar	1		2 75	
Roughers, 10-inch	4		2 50	
Roughers, 8-inch	2		2 50	
Roughers, 6-inch	2		1 75	
Rougher's helper	1		2 00	
Scrapers	4		1 75	
Scrapers' helpers	a8		1 50	
Scrapmen	4		1 30	
Scrapmen	a2		50	
Shearman, plate	1		7 00	
Shearman	1		2 00	
Shearman	1		1 35	
Shearman	2		1 65	
Shearman	6		1 30	
Shearman	2		1 10	
Shearman's helpers	2		2 00	
Shearman's helpers	2		1 65	
Shearman's helper	1		1 10	
Straighteners	5		1 60	
Watchmen	2		2 00	
Weighers	2		2 50	
Weighers	4		1 50	
Yard hand	1		2 50	

METALS AND METALLIC GOODS (PIG IRON), MARYLAND.—ESTAB. No. 391—Concluded.

Time, 24 hours per day (two turns); 291 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Gutter men	6		\$1 35	
Keepers	3		1 50	
Loaders	8		1 25	
Ore drawers	4		1 25	
Ore roasters	6		1 25	
Rakers	4		1 42	
Teamsters	4		1 30	
Watchman	1		1 07	
Wood fillers	10		1 50	
Wood loaders	2		1 50	

METALS AND METALLIC GOODS (PIG IRON), MARYLAND.—ESTAB. No. 392.

Time, 24 hours per day (two turns); 312 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$1 75	
Blacksmiths' helper	1		1 00	
Brakeman	1		1 30	
Breakers, limestone	4		1 25	
Carpenter	1		1 75	
Cinder men	4		1 25	
Engineers	4		1 45	
Fillers	13		1 25	
Gutter men	4		1 27	
Keepers	4		1 50	
Keepers' helpers	7		1 25	
Laborers	25		1 25	
Machinist	1		2 30	
Machinist's helper	1		1 37	
Stable man	1		1 00	

METALS AND METALLIC GOODS (WIRE GOODS), KENTUCKY.—ESTAB. No. 390.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cage framers	10		\$2 00	
Cage makers	a5		75	
Cage wirers	10		1 50	
Engineer	1		1 50	
Iron workers	35		2 00	
Loaders	8		1 75	
Machine hands	16		1 00	
Sieve and riddle workers	5		1 00	
Wire workers (heavy)	16		1 50	
Wire weavers	8		1 25	
Wire workers (fancy)	a11		75	
Wire workers' helper	a1		50	

METALS AND METALLIC GOODS (PIG IRON), MARYLAND.—ESTAB. No. 393.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	2		\$1 50	
Charcoal burners	2		1 50	
Engineers	2		1 50	
Foundry man	1		3 00	
Keepers	2		1 50	
Keepers' helpers	2		1 25	
Laborers	77		95	

METALS AND METALLIC GOODS (BRASS GOODS), MASSACHUSETTS.—ESTAB. No. 394.

Time, — hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	4		\$2 40	
Brass moulder	1		3 60	
Carpenters	5		2 25	
Foreman	1		3 20	
Laborers	18		1 20	
Machinists	40		2 20	
Moulders	19		2 00	
Pattern makers	2		2 60	

METALS AND METALLIC GOODS (PIG IRON), MARYLAND.—ESTAB. No. 391.

Time, 24 hours per day (two turns); 291 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Breakers, ore	3		\$1 25	
Cart drivers	3		1 17	
Cart drivers	4		1 25	
Coal burners	4		1 71	
Engineers	2		2 67	
Fillers	8		1 50	
Firmen	2		2 14	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 223.

METALS AND METALLIC GOODS (PIG LEAD), MISSOURI.—ESTAB. No. 395.

Time, 8 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	6		\$2 00	
Carpenters	12		2 25	
Drillers	200		1 25	
Engineers	12		2 00	
Laborers	362		1 25	
Machinists	2		2 50	
Machinists' helpers	10		1 10	
Miners &	200		1 25	

METALS AND METALLIC GOODS (PIG LEAD), MISSOURI.—ESTAB. No. 396.

Time, 8 hours per day; — days the past year.

Blacksmith	1		\$2 00	
Carpenter	1		2 50	
Carpenters	2		1 50	
Drillers	45		1 25	
Engineers	2		2 00	
Engineers	7		1 35	
Foremen	10		2 00	
Laborers	50		1 25	
Machinist	1		2 50	
Machinists' helpers	6		1 10	
Miners &	100		1 10	

METALS AND METALLIC GOODS (BUILDERS' HARDWARE), NEW HAMPSHIRE.—ESTAB. No. 397.

Time, 10 hours per day; — days the past year.

Fitters	50		\$1 50	
Laborers	100		1 25	
Machinists	5		2 25	
Moulders	25		2 00	
Pattern makers	7		2 50	

METALS AND METALLIC GOODS (PIPE CASTINGS), NEW JERSEY.—ESTAB. No. 398.

Time, 9 hours per day; 300 days the past year.

Blacksmiths	3		\$2 10	
Cupola men	2		2 10	
Laborers	12		1 35	
Machinists	4		2 00	
Moulders	8		2 50	
Moulders	30		2 37	
Moulders' helpers	38		1 41	
Pattern makers	4		2 40	
Teamsters	9		1 37	
Undesignated	1		1 66	

METALS AND METALLIC GOODS (PIG IRON), NEW YORK.—ESTAB. No. 399.

Time, 24 hours per day (two turns); — days the past year.

Blacksmith	1		\$2 25	
Blacksmith's helper	1		1 25	
Brakemen	4		1 33	
Breakers, ore	6		1 33	
Carpenter	1		2 50	
Cindersmen	2		1 33	

METALS AND METALLIC GOODS (PIG IRON), NEW YORK.—ESTAB. No. 399—Concluded.

Time, 24 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineers	4		\$1 66	
Fillers, top	2		1 50	
Fillers, bottom	12		1 23	
Foreman	1		2 21	
Keepers	2		1 67	
Keepers' helpers	4		1 50	
Machinist	1		3 00	
Machinist's helper	1		2 00	
Stable man	1		1 32	
Stable man	1		1 15	
Stove men	2		1 65	
Watchman	1		2 00	
Waterers, iron	2		1 33	
Weighers	2		1 33	
Yard hands	22		1 00	

METALS AND METALLIC GOODS (PIG IRON), NEW YORK.—ESTAB. No. 400.

Time, 24 hours per day (two turns); 365 days the past year.

Blacksmith	1		\$2 00	
Blacksmith's helper	1		1 70	
Engineer	1		3 30	
Engineers	2		2 50	
Fillers, top	4		1 60	
Fillers, bottom	20		1 60	
Iron carriers	2		1 60	
Keepers	4		1 85	
Keepers' helpers	4		1 65	
Laborers	25		1 35	

METALS AND METALLIC GOODS (BAR IRON), NEW YORK.—ESTAB. No. 401.

Time, 10 hours per day; — days the past year.

Blacksmith	1		\$1 21	
Blacksmith's helper	1		1 43	
Bundlers	2		1 55	
Carpenter	1		1 50	
Engineer	1		1 70	
Engineers	2		2 00	
Heaters	3		4 00	
Heaters	2		3 50	
Heaters' helpers	1		2 00	
Heaters' helpers	4		1 75	
Laborers	14		1 00	
Machinist	1		1 51	
Master mechanic	1		3 25	
Mason	1		2 95	
Masons' helpers	1		1 10	
Piler, iron	1		1 50	
Puddlers	21		3 15	
Puddlers' helpers	21		1 57	
Puddlers, level hand	6		2 36	
Pull-ups	52		54	
Rollers	3		6 00	
Rollers	2		5 25	
Roll turner	1		3 65	
Scrapman	1		1 75	
Scrapman	1		1 00	
Shearman	1		1 30	
Squeezer tender	1		1 30	
Watchman	1		1 20	
Waterers	2		1 60	
Wheelers	9		1 07	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 81, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (STEEL RAILS), NEW YORK.—ESTAB. No. 402.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	8		\$1 67	
Brakemen	6		1 75	
Buggy men	10		2 50	
Carpenters	2		1 67	
Catchers	6		2 60	
Chargers	23		2 07	
Cinder men	10		1 25	
Converters	8		2 08	
Cupola men	8		2 25	
Drag-outs	8		1 62	
Drillers	6		1 80	
Drop men	10		2 00	
Engineers	12		1 77	
Finishers	4		1 80	
Firemen	18		1 84	
Foremen	15		2 70	
Gagers	8		2 52	
Gate men	2		1 54	
Hammermen	7		2 75	
Heaters	5		5 00	
Heaters' helpers	5		2 50	
Hookers-up	6		2 87	
Hookers-up	2		2 52	
Hookers-up, tumble	4		3 58	
Hydraulic men	8		1 50	
Laborers	36		1 28	
Ladlemen	6		2 14	
Leverman	1		2 10	
Leaders	16		1 85	
Machinists	12		2 00	
Melters	4		4 31	
Mould men	12		1 98	
Pit men	22		2 12	
Punchers	2		2 52	
Rollers	4		5 67	
Roughers	2		3 15	
Roughers	6		3 00	
Sawmen	2		2 30	
Scrapmen	2		1 25	
Shovers-up	6		1 77	
Stockers	26		1 95	
Straighteners	10		2 57	
Tableman	1		2 50	
Teamsters	4		1 00	
Tool-room men	2		1 27	
Trimmers	8		2 54	
Undesignated	10		2 12	
Watchmen	2		1 54	
Wheelers, coke	4		1 25	
Wheelers, limestone	2		1 25	

METALS AND METALLIC GOODS (HORSESHOES), NEW YORK.—ESTAB. No. 403.

Time, 10 hours per day; — days the past year.

Blacksmiths	2		\$2 90	
Blacksmiths	18		2 50	
Blacksmiths	3		1 95	
Blacksmiths' helpers	13		1 37	
Ballers	16		3 50	
Bundlers	3		1 80	
Carpenters	3		2 25	
Catchers	22		1 72	
Chargers	3		2 00	
Engineers	4		3 00	

METALS AND METALLIC GOODS (HORSESHOES), NEW YORK.—ESTAB. No. 403—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineers	8		\$1 90	
Firemen	4		1 50	
Fitter feeders	100		3 00	
Fixers	2		1 50	
Foreman	1		5 50	
Foreman	2		4 50	
Foreman	4		4 00	
Foreman, assistant	3		3 00	
Furnace men	4		1 90	
Furnace men	86		1 50	
Gate men	3		1 25	
Heaters	32		4 23	
Heaters' helpers	32		1 75	
Hookers-up	3		2 40	
Hookers-up	4		1 50	
Hookers-up	18		1 30	
Hookers-up	200		2 40	
Horseshoe finishers	50		2 25	
Horseshoe nailers	53		2 57	
Horseshoe punchers	14		3 00	
Horseshoe runners	9		1 50	
Iron carriers	1,014		1 25	
Laborers	354		1 00	
Master mechanics	2		4 00	
Machinists	22		2 15	
Machinists	244		1 90	
Machinists' helpers	27		1 50	
Masons	3		2 50	
Masons' helpers	2		1 13	
Millwrights	2		2 15	
Moulders	7		2 50	
Mounters	3		2 25	
Nail-rod heaters	50		2 00	
Oilers	2		1 00	
Pilers, iron	5		1 40	
Puddlers	164		2 80	
Puddlers' helpers	147		1 50	
Rollers	26		4 84	
Rollers, muck	8		4 40	
Roll turners	4		3 60	
Roughers	18		2 50	
Scrapmen	150		1 50	
Shearman	9		1 40	
Squeezers tenders	6		1 30	
Straighteners	13		1 67	
Straighteners, cold	3		1 50	
Undesignated	16		1 30	
Undesignated	242		88	
Watchmen	2		1 25	
Watchmen	2		1 00	
Waste gatherers	2		1 00	
Waterers, iron	4		1 60	
Wheelers, coal	22		1 50	

METALS AND METALLIC GOODS (MERCHANT BRASS), NEW YORK.—ESTAB. No. 404.

Time, 10 hours per day; 290 days the past year.

Annealers	2		\$3 00	
Annealers' helpers	5		1 12	
Blacksmith	1		2 48	
Brass melter	1		3 00	
Brass-melters' help-ers	3		1 62	
Brass workers	64		85	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

**METALS AND METALLIC GOODS (MERCHANT BRASS),
NEW YORK.—ESTAB. No. 404.—Concluded.**

Time, 10 hours per day; 290 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Brasier	1		\$1 50	
Braziers	3		1 25	
Braziers	6		1 00	
Braziers	a2		75	
Brazier	a1		50	
Carpenter	1		1 80	
Coppersmith	1		8 00	
Engineer	1		2 40	
Foreman	1		4 78	
Foreman	1		4 00	
Foremen	2		3 00	
Foreman, assistant	1		1 62	
Laborers	8		1 00	
Laborers	8		1 12	
Machinist	1		3 00	
Machinist	1		1 75	
Packer	a1		50	
Pickler	1		1 62	
Pickler's helpers	2		1 12	
Press hands	4		1 05	
Press hands	a2		67	
Rivet maker	1		1 50	
Rollers	2		2 67	
Rollers' helpers	2		2 00	
Rollers' helpers	7		1 12	
Slitter	1		1 62	
Teamster	1		1 48	
Watchman	1		2 00	
Watchman	1		1 40	
Waterer	a1		75	
Wire drawers	2		2 40	
Wire drawers	3		1 85	
Wire drawers	2		1 50	
Wire drawers	5		1 25	

**METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 405.**

Time, 24 hours per day (two turns); — days the past year.

Blacksmith	1		\$2 00	
Blacksmith's helper	1		1 50	
Coal cleaners	3		1 25	
Engineer	1		2 77	
Engineer	1		1 75	
Fillers, bottom	12		1 25	
Fillers, top	2		1 35	
Guttermen (con- tractor)	b1		4 97	
Hot-blast men	2		1 25	
Keepers	2		1 75	
Keepers' helpers	2		1 35	
Laborer, boss	1		1 98	
Laborers	12		1 00	
Loaders	2		1 40	
Screeners and carters	3		1 25	
Unloaders	3		1 25	
Watchman	1		1 66	
Weighers	2		1 00	

a Youth.

**METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 406.**

Time, 25 hours per day (two turns); 232 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$1 50	
Breakers, limestone	2		1 25	
Breakers, ore	2		1 50	
Carpenter	1		1 35	
Cindermen	2		1 15	
Engineers	2		1 75	
Engineers	2		1 15	
Fillers, top	2		1 05	
Fillers, bottom	2		1 05	
Gutter men	2		1 15	
Keepers	2		1 35	
Keepers' helpers	2		1 10	
Laborers	4		1 00	
Ore setter	1		1 25	
Stable man	1		1 25	
Watchman	1		1 50	

**METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 407.**

Time, 24 hours per day (two turns); 359 days the past year.

Breakers, limestone	2		\$1 25	
Carpenter	1		1 30	
Cart drivers	2		1 15	
Engineer	1		1 75	
Engineer	1		1 15	
Fillers, top	2		1 20	
Fillers, bottom	6		1 10	
Firemen	2		1 00	
Foundry man	1		2 70	
Iron carriers	2		1 15	
Keepers	2		1 40	
Keepers' helpers	2		1 10	
Laborers	10		1 00	

**METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 408.**

Time, 24 hours per day (two turns); 340 days the past year.

Blacksmith	1		\$2 10	
Breakers, iron	2		1 50	
Breakers, ore	4		1 20	
Cindermen	8		1 35	
Engineers	2		1 80	
Engineers	2		1 40	
Fillers, bottom	18		1 25	
Fillers, top	6		1 50	
Firemen	2		1 63	
Foundry man	3		5 56	
Iron carriers	2		1 30	
Keepers	9		1 60	
Keepers' helpers	9		1 25	
Laborers	13		1 10	
Machinist	1		2 00	
Overseer, night	1		2 17	
Sand man	1		1 10	
Waterers, iron	4		90	

b Included in this sum are the wages of two assistants.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 409.

Time, 24 hours per day (two turns); 350 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$1 50	
Blacksmith's helper	1		1 00	
Breakers, limestone	2		1 00	
Cagers	2		1 12	
Carpenter	1		1 50	
Cart drivers	4		1 08	
Cart drivers	2		1 25	
Cinder men	2		1 12	
Crib tender	1		1 12	
Engineers	2		82	
Fillers, top	4		1 10	
Fillers, bottom	12		1 12	
Firemen	2		1 00	
Guttermen	3		1 90	
Hot-blast man	1		1 00	
Keepers	2		1 40	
Keepers' helpers	2		1 15	
Loaders	3		1 68	
Overseer, night	1		1 75	
Screeners	4		1 00	

METAL AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 410.

Time, 24 hours per day (two turns); 285 days the past year.

Blacksmith	1		\$2 00
Blacksmith's helper	1		1 25
Boiler cleaners	2		1 32
Brakeman	1		1 50
Carpenters	2		1 87
Cinder men	14		1 35
Conductor	1		1 75
Clay mixer	1		1 32
Dock-brake boys	2		1 00
Engineer	1		2 25
Engineers	2		1 33
Engineers	2		1 75
Engineers	2		1 20
Fillers, top	6		1 65
Fillers, bottom	24		1 32
Firemen	4		1 35
Foremen	2		2 25
Hot-blast men	2		1 48
Iron carriers	14		1 75
Keepers	2		1 76
Keepers' helpers	10		1 48
Laborers	20		1 10
Machinist	1		1 75
Sailor	1		1 65
Scrapman	1		1 10
Watchman	1		1 25
Yard hands	21		1 32

METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 411.

Time, 24 hours per day (two turns); — days the past year.

Breakers, iron	2		\$1 20
Cindermen	3		1 10
Coal cleaner	1		1 10
Fillers	8		1 10
Foundry man	1		4 00
Keepers	2		1 60
Keepers' helpers	2		1 10
Laborers	6		1 00

METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 413.

Time, 24 hours per day (two turns); 285 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$2 50	
Blacksmith's helper	1		1 25	
Boiler maker	1		1 75	
Brakemen	2		1 60	
Breakers, limestone	5		1 25	
Breakers, ore	5		1 30	
Carpenter	1		1 85	
Cinder men	10		1 32	
Dock-brake boys	2		1 00	
Engineers	3		2 25	
Engineers	2		1 83	
Fillers, bottom	24		1 35	
Fillers, top	6		1 55	
Firemen	6		1 40	
Iron carriers	10		1 60	
Keepers	4		1 60	
Keepers' helpers	8		1 85	
Laborers	29		1 20	
Laborers	14		1 10	
Machinist	1		1 75	
Pipe fitter	1		1 50	
Sailor	1		1 65	
Scrapmen	2		1 10	
Screeners	2		1 25	
Screeners	2		1 10	
Stockman	1		1 35	
Track repairer	1		1 50	
Watchman	1		1 30	
Weighers	4		1 10	

METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 413.

Time, 24 hours per day (two turns); 225 days the past year.

Blacksmith	1		\$2 00
Blacksmith's helper	1		1 15
Breakers, limestone	2		1 25
Breakers, ore	4		1 20
Cagers	2		1 40
Carpenters	2		1 75
Cart drivers	2		1 20
Cart drivers	4		1 40
Engineers	3		2 00
Fillers, top	3		1 50
Fillers, bottom	12		1 40
Fireman	1		1 30
Iron carriers	6		1 82
Keepers	2		2 00
Keepers' helpers	4		1 40
Laborers	12		1 15
Overseer, night	1		2 50
Overseer	1		2 00
Scrapman	1		1 20
Teamster	1		1 25

METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 414.

Time, 24 hours per day (two turns); — days the past year.

Blacksmith	1		\$2 00
Blacksmith's helper	1		1 00
Breakers, limestone	2		1 00
Cagers	3		1 25
Cart drivers	3		1 00
Cinder men	2		1 25
Engineers	2		1 75

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (PIG IRON), OHIO.—
ESTAB. No. 414—Concluded.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Fillers, top	2	.....	\$1 25	.....
Fillers, bottom	8	.....	1 12	.....
Firemen	2	.....	1 00	.....
Iron breakers and carriers	3	.....	1 25	.....
Keepers	2	.....	2 00	.....
Keepers' helpers	2	.....	1 25	.....
Laborers	4	.....	1 00	.....
Scrapmen	2	.....	1 05	.....
Screeners	4	.....	1 00	.....

METALS AND METALLIC GOODS (PIG AND BAR IRON), OHIO.—ESTAB. No. 415.

Time, 24 hours per day (two turns); 275 days the past year.

Ash man	1	.....	\$2 00	.....
Blacksmith	1	.....	2 50	.....
Blacksmith	1	.....	2 00	.....
Blacksmiths' helper	1	.....	1 75	.....
Blacksmiths' helpers	2	.....	1 40	.....
Blacksmiths' helper	1	.....	1 25	.....
Bricklayer	1	.....	3 60	.....
Bricklayers' helper	1	.....	1 25	.....
Bundlers	4	.....	1 35	.....
Cagers	2	.....	1 50	.....
Carpenter	1	.....	2 25	.....
Cast-house men	8	.....	1 35	.....
Catchers, bar	2	.....	4 00	.....
Catchers, muck	2	.....	2 50	.....
Catchers, 9-inch	2	.....	2 50	.....
Catchers, 8-inch	2	.....	1 50	.....
Catcher, butt	1	.....	1 25	.....
Catchers' helpers	2	.....	1 15	.....
Chargers	2	.....	1 20	.....
Cinder men	2	.....	1 70	.....
Cinder snappers	3	.....	1 35	.....
Drag-outs, muck	2	.....	2 65	.....
Drag-out, butt	1	.....	1 20	.....
Engineer	1	.....	2 50	.....
Engineer	1	.....	2 25	.....
Engineers	3	.....	1 80	.....
Engineers	2	.....	1 75	.....
Engineer	1	.....	1 10	.....
Fillers	8	.....	4 35	.....
Fillers	8	.....	1 25	.....
Finishers	2	.....	2 25	.....
Firemen	4	.....	1 60	.....
Foreman	1	.....	6 00	.....
Foremen	2	.....	2 25	.....
Heaters, 8-inch	2	.....	7 00	.....
Heaters, 9-inch	4	.....	5 00	.....
Heaters, bar	4	.....	4 00	.....
Heater, butt	1	.....	3 00	.....
Heater's helper, butt	1	.....	2 00	.....
Heaters' helpers, bar	4	.....	1 62	.....
Heaters' helpers, 8-inch	2	.....	1 62	.....
Hookers-up, bar	1	.....	1 55	.....
Hookers-up, bar	2	.....	1 35	.....
Hookers-up, bar	2	.....	1 10	.....
Hookers-up, muck	2	.....	1 00	.....
Hookers-up, butt	61	.....	70	.....
Hot-blast men	2	.....	1 35	.....
Keepers	2	.....	1 60	.....

METALS AND METALLIC GOODS (PIG AND BAR IRON), OHIO.—ESTAB. No. 415—Concluded.

Time, 24 hours per day (two turns); 275 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Keepers' helpers	4	.....	\$1 25	.....
Laborer, boss	1	.....	1 75	.....
Laborers	17	.....	1 50	.....
Laborers	20	.....	1 30	.....
Laborers	4	.....	1 10	.....
Machinist	1	.....	2 25	.....
Machinist's helper	1	.....	1 35	.....
Millwright	1	.....	3 60	.....
Pilers, iron	2	.....	1 70	.....
Pilers, iron	2	.....	1 50	.....
Pilers, iron	4	.....	1 10	.....
Puddle bosses	2	.....	1 75	.....
Puddlers	32	.....	3 85	.....
Puddlers' helpers	44	.....	1 95	.....
Rollers, 9-inch	2	.....	12 00	.....
Roller, 8-inch	1	.....	12 00	.....
Roller, 8-inch	1	.....	5 00	.....
Rollers, bar	2	.....	4 00	.....
Rollers, muck	2	.....	3 85	.....
Roller, butt	1	.....	2 25	.....
Rollers' helper, muck	2	.....	2 25	.....
Rollers' helpers, bar	2	.....	1 80	.....
Roll turner	1	.....	3 60	.....
Roll turner	1	.....	2 00	.....
Roll turner	1	.....	1 50	.....
Roughers, bar	2	.....	2 95	.....
Roughers, bar	2	.....	2 10	.....
Roughers, 8-inch	4	.....	3 50	.....
Roughers, 9-inch	6	.....	3 35	.....
Shearmen	4	.....	2 10	.....
Shearmen	4	.....	1 50	.....
Shearmen's helper	2	.....	1 20	.....
Sticklers-in, 8-inch	2	.....	1 75	.....
Straightener, cold-bar	1	.....	5 00	.....
Straighteners, hot-bar	4	.....	1 44	.....
Straighteners, 8-inch	64	.....	70	.....
Straighteners, 9-inch	4	.....	1 40	.....
Strandmen	4	.....	1 25	.....
Teamsters	4	.....	1 70	.....
Unloaders	5	.....	1 50	.....
Watchman	1	.....	1 50	.....
Weighers	5	.....	1 35	.....
Wheelers, coal	3	.....	1 70	.....
Wheelers, coal	2	.....	1 40	.....
Wheelers, iron	3	.....	1 10	.....

METALS AND METALLIC GOODS (BAR IRON), OHIO.—
ESTAB. No. 416.

Time, 10 hours per day; 260 days the past year.

Blacksmith	1	.....	\$3 75	.....
Blacksmith's helper	1	.....	1 65	.....
Carpenter	1	.....	2 25	.....
Engineers	3	.....	2 25	.....
Finishers	10	.....	1 50	.....
Firemen	2	.....	1 40	.....
Heaters	4	.....	5 25	.....
Heaters' helpers	4	.....	1 75	.....
Laborer, boss	1	.....	2 50	.....
Laborers	28	.....	1 12	.....
Millwright	1	.....	2 75	.....
Puddlers	8	.....	3 25	.....
Puddlers' helpers	8	.....	2 25	.....
Rollers	5	.....	8 00	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (BAR IRON), OHIO.—
ESTAB. No. 416—Concluded.

Time, 10 hours per day; 269 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Roughers	10		\$3 60	
Shearmen	2		1 65	
Shearmen's helpers	2		1 40	
Straighteners	10		80	
Watchmen	2		1 60	

METALS AND METALLIC GOODS (HOOP IRON, COTTON TIES), OHIO.—ESTAB. No. 417.

Time, 10 hours per day; 225 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	8		\$2 25	
Breakers, iron	3		1 25	
Breakers, ore	3		2 00	
Bundlers	16		1 53	
Catchers	4		2 50	
Drag-outs	6		3 00	
Engineers	2		2 50	
Firemen	4		1 33	
Heaters	7		(b)	
Heaters' helpers	13		1 70	
Laborers	12		1 30	
Laborers	25		1 10	
Machinists	2		2 00	
Masons	2		4 00	
Millwrights	2		1 60	
Puddlers	42		4 00	
Puddlers' helpers	42		1 33	
Rollers	8		(c)	
Roll turners	5		3 00	
Roughers	14		4 00	
Straighteners and drag-outs	50		(d)	
Warehouse men	3		1 40	
Waterers	2		1 20	

METALS AND METALLIC GOODS (STEEL RAILS, RODS, INGOTS), OHIO.—ESTAB. No. 418.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$2 50	
Blacksmiths	8		1 95	
Blowers	2		3 25	
Boiler makers	11		1 76	
Boiler-makers' helpers	12		1 50	
Boiler-makers' helper	1		1 85	
Bottom man	1		2 75	
Brakemen	8		1 60	
Bricklayer	1		1 50	
Brickmakers	2		3 00	
Brickmaker's helper	1		1 25	
Bulldog men	2		2 26	
Bullhead men	12		2 25	
Bugymen	0		1 22	
Bundlers	8		2 00	
Bundlers	4		1 20	
Buttmen	2		1 00	
Catchers	12		2 50	
Catchers	0		2 15	
Catchers	4		1 69	
Catchers	62		1 25	
Catchers' helpers	4		75	

a Youth.

b \$3 to \$3 per day.

c \$5 to \$10 per day.

d 50 cents to \$1 per day.

METALS AND METALLIC GOODS (STEEL RAILS, RODS, INGOTS), OHIO.—ESTAB. No. 418—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Chargers	24		\$1 73	
Chargers	46		1 32	
Chippers	6		1 25	
Cinder men	12		1 85	
Core maker	1		1 80	
Cupola men	18		1 74	
Drag-outs	12		1 05	
Drillers	8		1 30	
Electric-light man	1		1 89	
Engineers	6		2 30	
Engineers	7		1 97	
Engineers	30		1 77	
Engineers	2		1 48	
Engineers	4		1 08	
Engineers	11		1 09	
Firemen	63		1 15	
Foreman	1		9 00	
Foremen	2		6 90	
Foremen	3		4 68	
Foreman	1		4 00	
Foreman	1		3 68	
Foremen	9		2 77	
Foreman	1		2 20	
Gas men	10		1 23	
Hammermen	2		2 50	
Heaters	10		5 00	
Heaters	4		4 50	
Heaters	10		3 60	
Heaters	8		3 29	
Heaters	12		2 65	
Heater	1		2 00	
Heaters' helpers	4		2 25	
Heaters' helpers	67		1 64	
Heaters' helpers	8		1 35	
Heaters' helpers	15		1 28	
Hookers-up	6		1 80	
Hookers-up	8		1 57	
Hookers-up	14		1 35	
Hookers-up	8		1 10	
Hot-bed men	6		1 25	
Laborers	4		1 50	
Laborers	27		1 31	
Laborers	380		1 01	
Ladlemen	12		2 11	
Ladlemen	4		1 41	
Large crab men	2		1 65	
Lead-outs	6		1 30	
Lever men	2		2 00	
Machinist	1		2 70	
Machinists	18		2 05	
Machinist	1		1 55	
Machinists' helpers	7		1 50	
Machinists' and blacksmiths' helpers	19		1 23	
Melter	1		4 00	
Melter	1		1 70	
Melters' helpers	2		1 40	
Moulder	1		2 30	
Moulders	3		2 07	
Moulders	10		1 70	
Moulders' helpers	7		1 38	
Pit men	18		2 12	
Pit men	4		1 30	
Rail runners	16		1 00	
Reelers	14		1 57	
Reversers	2		1 70	
Rollers, hoop	2		12 00	
Rollers, rod	2		10 00	
Rollers, rod	6		7 00	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, page 143 to 226.

METALS AND METALLIC GOODS (STEEL RAILS, RODS, INGOTS), OHIO.—ESTAB. No. 418—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Rollers, guide	2		\$6 00	
Rollers, muck	2		4 35	
Rollers, 18-inch	2		3 60	
Rollers	4		2 17	
Rollers' helpers	2		3 00	
Roll turners	13		2 25	
Roughers	12		2 78	
Roughers	6		2 63	
Roughers	16		2 29	
Roughers	4		1 62	
Runnersmen	12		1 84	
Saw men	2		1 80	
Screw men	4		1 67	
Shearmen, scrap	29		1 02	
Shearmen	4		1 53	
Shearmen	14		1 14	
Slatters	3		1 80	
Small crab boys	a2		60	
Splice finishers	3		2 00	
Stockers	22		1 28	
Speigel scalesmen	2		1 20	
Steel watchers	a2		75	
Sticklers-in	12		2 50	
Sticklers-in	2		1 82	
Sticklers-in	4		1 80	
Stockmen	6		1 27	
Strandsmen	2		1 25	
Straighteners	4		4 00	
Straighteners, cold	2		2 00	
Straighteners	a8		1 08	
Telegraph men	28		1 77	
Telegraph men	13		1 24	
Throw-overs	2		1 50	
Tongmen and hook-ers	20		3 12	
Tongmen	2		2 00	
Undesignated	8		1 25	
Undesignated	a12		1 02	
Undesignated	a24		85	
Undesignated	a36		63	
Undesignated	b13		45	
Undesignated	b13		32	
Unloaders, coal	15		1 20	
Vessel men	6		2 09	
Watchman	1		1 20	
Waterers	4		1 20	
Weighers	2		1 20	
Weigher	1		2 40	
Weigher	1		2 00	
Weighers	2		1 80	
Weighers	9		1 15	
Wheelers, coal and ash	82		1 03	

METALS AND METALLIC GOODS (PLATE IRON, PLATE STEEL), OHIO.—ESTAB. No. 419.

Time, 10 hours per day; 280 days the past year.

Blacksmith	1		\$3 08	
Blacksmith	1		1 92	
Blacksmith's helpers	2		1 35	
Buggymen	2		3 14	
Carpenters	3		2 80	
Catchers, muck	2		4 84	
Catcher's helpers	2		2 42	

a Youth.

b Children.

c This sum includes wages of 12 assistants.

METALS AND METALLIC GOODS (PLATE IRON, PLATE STEEL), OHIO.—ESTAB. No. 419—Concluded.

Time, 10 hours per day; 280 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cinder men	2		\$1 50	
Cinder man	1		1 29	
Cold roller	1		1 51	
Cold rollers' helpers	a2		69	
Drag-outs, muck	6		1 78	
Drag-outs, plate	2		2 65	
Drag-out, helper	a1		90	
Engineer	1		2 86	
Engineer	1		2 60	
Engineers	3		2 12	
Firemen	3		1 70	
Fireman	1		1 10	
Furnace-door tenders	a2		59	
Galvanizer	c1		46 15	
Heaters	d4		6 13	
Heaters, plate	3		6 80	
Heaters, sheet	4		4 70	
Heater's helpers, plate	3		2 33	
Heater's helpers	8		2 03	
Heater's helpers	3		1 49	
Heater's helpers, sheet	8		2 05	
Heater's helpers	4		1 70	
Holster	1		1 10	
Hookers-up	a4		1 24	
Knobblers	a17		5 44	
Laborers	100		1 00	
Machinist	1		3 46	
Machinists	3		2 50	
Mason	1		3 08	
Marker	1		1 38	
Marker's helpers	a2		59	
Matchers	4		1 54	
Oiler	1		1 34	
Pack openers	2		1 67	
Painter	1		3 85	
Pilers, iron	8		1 33	
Piler, plate	d1		13 27	
Puddlers	16		3 35	
Puddlers' helpers	16		2 23	
Roller, plate	f1		27 88	
Rollers, sheet	4		8 87	
Rollers, muck	2		8 42	
Rollers' helpers, muck	4		2 09	
Roll turner	1		3 85	
Scrapmen	a4		80	
Screwman	1		2 30	
Scorer	1		1 55	
Shearman	1		4 60	
Shearman, plate	1		3 27	
Shearman, muck	1		3 08	
Shearmen, scrap	6		1 73	
Shearmen's helpers, plate	5		1 92	
Shearman's helper, muck	1		1 79	
Shearman's helper	1		1 67	
Shearman's helper	1		1 10	
Shinglers	2		7 84	
Shinglers' helpers	2		3 92	
Stocker	1		1 59	
Watchmen	4		1 50	
Weigher	1		8 15	
Weighers	5		1 35	
Wheelers, coal	3		1 46	
Wheelers, coal	2		1 35	

d This sum includes the wages of 4 helpers.

e Includes wages of assistants.

f This sum includes wages of helpers.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 21, also summaries pages 143 to 220.

METALS AND METALLIC GOODS (STEEL WIRE),
OHIO.—ESTAB. No. 420.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmiths	8		\$1 06	
Bundlers	63		1 18	
Carpenters	8		1 86	
Cleaners	210		1 28	
Die runners	27		1 67	
Engineers	5		1 67	
Firemen	14		1 08	
Foremen	20		3 89	
Furnace men and potmen	43		1 18	
Galvanisers	95		1 08	
Laborers	400		1 08	
Machinists	7		2 25	
Mufflers	54		1 18	
Pointers	43		1 23	
Tinners	20		1 88	
Wheelers	62		1 18	
Wire drawers	375		2 10	

METAL AND METALLIC GOODS (CRUCIBLE STEEL),
OHIO.—ESTAB. No. 421.

Time, 10 hours per day; — days the past year.

Foremen	2		\$3 09	
Hammermen	4		4 16	
Hammermen's help- ers	6		1 44	
Heaters	5		2 75	
Laborers	26		1 25	
Machinists	4		2 16	
Melters	3		4 80	
Melters' helpers	16		1 84	
Rollers	3		8 00	
Roughers and finish- ers	17		1 87	
Straighteners	216		75	

METALS AND METALLIC GOODS (NAILS), OHIO.—
ESTAB. No. 422.

Time, 10 hours per day; — days the past year.

Blacksmith	1		\$3 25	
Blacksmiths	2		2 50	
Blacksmiths' helpers	2		1 75	
Bluer	1		4 65	
Bluer's helper	1		1 50	
Catchers	2		4 80	
Cropper	1		2 75	
Cropper's helper	21		75	
Engineer	1		3 50	
Engineers	2		2 50	
Engineer	1		2 00	
Firemen	6		1 50	
Heaters, plate	8		5 62	
Heaters' helpers	8		2 50	
Hookers-up	2		2 70	
Laborers	15		1 15	
Machinist	1		3 00	
Machine tenders	8		2 50	
Nailers	37		8 48	
Nail feeders	51		2 04	
Packer	1		1 00	
Pilers, iron	28		1 00	
Pull-overs	2		2 25	

METALS AND METALLIC GOODS (NAILS), OHIO.—
ESTAB. No. 423—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Rollers	2		\$0 25	
Roughers	2		3 50	
Shearman, plate	1		6 15	
Shearman's helper	1		3 25	
Shearman's helpers	6		2 40	
Shovers-under	4		3 20	
Tenders, self-feeders	274		75	

METALS AND METALLIC GOODS (NAILS), OHIO.—
ESTAB. No. 423.

Time, 10 hours per day; — days the past year.

Bluer	1		\$4 00	
Bluer's helpers	22		50	
Catchers, muck	3		2 50	
Catchers, plate	2		3 20	
Drag-outs	3		2 00	
Engineers	2		3 00	
Firemen	3		1 50	
Heaters	6		5 00	
Heater's helpers	6		2 00	
Hookers-up, plate	2		1 60	
Hookers-up, muck	3		1 50	
Hot-machine tenders	5		2 50	
Laborers	5		1 10	
Nailers	23		6 50	
Nail feeders	81		1 50	
Packer	1		6 00	
Packer's helpers	217		50	
Pilers, iron	2		1 25	
Puddlers	42		3 00	
Puddlers' helpers	42		2 00	
Puddlers' helpers	42		1 25	
Rollers, muck	3		5 00	
Rollers, plate	2		7 00	
Roughers, plate	2		3 00	
Shearman, muck	2		1 35	
Shearman, plate	1		7 00	
Shearman's helpers	5		1 60	
Shovers-under, plate	4		2 00	
Wheelers, ash	2		1 35	
Wheelers, iron	3		1 50	

METALS AND METALLIC GOODS (PIG IRON), PENN-
SYLVANIA.—ESTAB. No. 424.Time, 24 hours per day (two turns); 365 days the
past year.

Blacksmith	1		\$2 50	
Blacksmith's helper	1		1 50	
Breakers, iron	16		1 80	
Carpenter	1		2 75	
Carpenter	1		2 00	
Cindermen	6		1 45	
Engineers	2		2 20	
Fillers, top	4		1 60	
Fillers, bottom	16		1 55	
Firemen	2		1 45	
Iron carriers	10		1 80	
Keepers	2		3 25	
Keepers' helpers	6		1 70	
Laborers	20		1 20	
Loaders	2		1 80	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (PIG IRON), PENNSYLVANIA.—ESTAB. No. 425.

Time, 24 hours per day (two turns); 185 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineers	2		\$2 20	
Fillers	10		1 65	
Firemen	2		1 50	
Keepers	2		2 00	
Laborers	5		1 30	
Laborers	40		1 15	

METALS AND METALLIC GOODS (PIG IRON), PENNSYLVANIA.—ESTAB. No. 426.

Time, 24 hours per day (two turns); 150 days the past year.

Blacksmith	1		\$2 00	
Blacksmith's helper	1		1 35	
Brakemen	3		1 35	
Breaker, ore	1		1 35	
Breaker, ore	1		1 25	
Cart driver	1		2 25	
Cinder snappers	2		1 35	
Dumper	1		1 30	
Engineer	1		2 65	
Engineers	4		1 60	
Fillers, bottom	13		1 35	
Fillers, top	3		1 65	
Hot-blast men	2		1 65	
Incline brakeman	1		2 25	
Keepers	2		1 30	
Keepers' helpers	4		1 35	
Laborer	1		1 70	
Laborers	10		1 10	
Stock-house men	2		1 20	
Wheeler, ore	2		1 52	

METALS AND METALLIC GOODS (BAR IRON), PENNSYLVANIA.—ESTAB. No. 427.

Time, 10 hours per day; 260 days the past year.

Blacksmith	1		\$3 50	
Blacksmiths' helpers	3		1 70	
Carpenter	1		2 00	
Catcher, bar	1		4 00	
Catchers, 8-inch	2		3 00	
Catchers, 10-inch	2		3 00	
Catchers, muck	5		2 50	
Catchers' helper	1		2 50	
Cindermen	3		1 66	
Drag-outs, 10-inch	2		2 00	
Drag-out, bar	1		1 65	
Engineer	1		3 50	
Engineers	3		2 00	
Firemen	2		1 05	
Greaser	1		2 00	
Grease distributor	1		1 15	
Heaters, 8-inch	2		6 00	
Heaters, 10-inch	2		6 00	
Heaters, bar	2		5 00	
Heaters' helper, bar	1		1 35	
Laborer	1		1 45	
Laborers	5		1 35	
Laborers	6		1 25	
Millwright	1		3 15	

METALS AND METALLIC GOODS (BAR IRON), PENNSYLVANIA.—ESTAB. No. 427—Concluded.

Time, 10 hours per day; 260 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Pilers and chargers, bar	2		\$1 58	
Pilers and chargers, 10-inch	2		1 58	
Puddlers	68		3 50	
Puddle bosses	2		4 00	
Puddlers' helpers	68		2 00	
Rollers, 8-inch	2		8 00	
Rollers, 10-inch	2		7 00	
Roller, bar	1		6 00	
Rollers, muck	2		3 50	
Roughers, 8-inch	2		3 00	
Roughers, 10-inch	2		8 00	
Roughers, bar	1		3 25	
Roughers, muck	5		2 50	
Roughers' helpers	2		2 00	
Shearman	1		1 75	
Shearmen	5		1 65	
Shearmen	6		1 25	
Stocker	1		8 00	
Stocker's helpers	4		2 00	
Straighteners	2		2 00	
Straighteners	3		1 00	
Watchmen	8		1 65	

METALS AND METALLIC GOODS (BAR IRON, NAILS, ETC.), PENNSYLVANIA.—ESTAB. No. 428.

Time, 10 hours per day; 250 days the past year.

Blacksmiths and helpers	202		\$1 75	
Bricklayers	33		3 00	
Cold-roll men	130		2 00	
Engineers	25		2 40	
Firemen	22		1 70	
Laborers	45		2 00	
Laborers	120		1 25	
Laborers	300		1 12	
Machinists	185		2 40	
Millwrights and carpenters	40		2 30	
Moulders	80		2 30	
Pattern makers	20		2 40	
Puddlers	152		8 35	
Puddlers' helpers	152		2 13	

METALS AND METALLIC GOODS (WROUGHT IRON PIPE), PENNSYLVANIA.—ESTAB. No. 429.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	15		\$2 00	
Boiler makers	80		2 00	
Carpenters	20		3 25	
Engineers and firemen	35		2 00	
Heaters and welders	450		2 00	
Laborers	700		1 15	
Machinists and helpers	157		2 00	
Masons	6		3 50	
Moulders	45		2 25	
Pattern makers	10		2 50	

a Rollers, heaters, catchers, nailers, etc., were not reported.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (IRON SAFES),
PENNSYLVANIA.—ESTAB. No. 430.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carpenters	2	.....	\$3 50	.....
Iron workers	101	.....	1 80	.....
Laborers	8	.....	1 25	.....
Painters	2	.....	3 00	.....
Teamster	1	.....	2 00	.....

METALS AND METALLIC GOODS (PIPE IRON), PENN-
SYLVANIA.—ESTAB. No. 431.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	4	.....	\$2 45	.....
Bricklayers	7	.....	3 25	.....
Carpenters	4	.....	2 80	.....
Carpenter man	1	.....	5 00	.....
Engineers	6	.....	2 00	.....
Firemen	4	.....	1 50	.....
Heaters	18	.....	6 00	.....
Heaters' helpers	36	.....	1 85	.....
Laborers	300	.....	1 15	.....
Machinists	7	.....	2 90	.....
Piers, iron	12	.....	1 80	.....
Paddlers	98	.....	3 62	.....
Paddlers' helpers	98	.....	2 24	.....
Refiners	2	.....	5 00	.....
Rollers, plate	2	.....	10 00	.....
Rollers, muck	4	.....	5 00	.....
Rollers' helpers	28	.....	2 20	.....
Shearers	2	.....	5 10	.....
Shearers	12	.....	3 00	.....
Shearers' helpers	2	.....	1 86	.....
Shinglers	a2	.....	12 00	.....

METALS AND METALLIC GOODS (CRUCIBLE STEEL),
PENNSYLVANIA.—ESTAB. No. 432.

Time, 10 hours per day; — days the past year.

Blacksmith	1	.....	\$2 25	.....
Blacksmiths' helpers	2	.....	1 70	.....
Bricklayers	3	.....	3 50	.....
Bricklayers' helpers	2	.....	2 00	.....
Bricklayers' helpers	3	.....	1 65	.....
Carpenters	6	.....	1 95	.....
Charcoal grinder	1	.....	1 30	.....
Engineers	2	.....	3 25	.....
Engineers	5	.....	1 96	.....
Engineers	3	.....	1 30	.....
Firemen	3	.....	1 70	.....
Foreman	1	.....	5 00	.....
Foremen	4	.....	4 00	.....
Foremen	2	.....	3 50	.....
Foreman	1	.....	3 00	.....
Foremen	3	.....	2 50	.....
Foreman	1	.....	2 00	.....
Hammermen	7	.....	4 50	.....
Inspectors	17	.....	1 75	.....
Laborers	9	.....	1 35	.....
Laborers	15	.....	1 00	.....
Laborers	23	.....	1 00	.....
Machinists	4	.....	2 37	.....
Medicine man	1	.....	1 20	.....
Millwright	1	.....	4 00	.....

a Pay helpers out of earnings.

METALS AND METALLIC GOODS (CRUCIBLE STEEL),
PENNSYLVANIA.—ESTAB. No. 433—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Millwright's helpers	4	.....	\$1 70	.....
Rollers	a5	.....	30 00	.....
Testers	2	.....	1 45	.....
Watchman	1	.....	2 25	.....
Watchmen	2	.....	1 85	.....
Weighers	3	.....	1 70	.....
Weigher	1	.....	1 30	.....
Wire drawer	1	.....	3 70	.....

METALS AND METALLIC GOODS (CRUCIBLE STEEL),
PENNSYLVANIA.—ESTAB. No. 433.

Time, 10 hours per day; 296 days the past year.

Blacksmiths	8	.....	\$3 00	.....
Carpenter	1	.....	2 75	.....
Die grinder	1	.....	1 70	.....
Engineer	1	.....	5 75	.....
Foreman	1	.....	5 75	.....
Foreman	1	.....	1 50	.....
Foreman	1	.....	1 58	.....
Greaser	1	.....	3 00	.....
Hammermen	20	.....	1 50	.....
Laborers	46	.....	1 25	.....
Laborers	100	.....	1 25	.....
Melbers	a4	.....	31 23	.....
Millwright	1	.....	3 75	.....
Millwright's helper	1	.....	2 48	.....
Plumber	1	.....	3 50	.....
Roller, 18-inch	a1	.....	173 52	.....
Roller, bar	a1	.....	112 75	.....
Roller, 22-inch	a1	.....	71 85	.....
Roller, bloom	a1	.....	33 95	.....
Roller, bar	a1	.....	12 40	.....
Roller, muck	a1	.....	9 00	.....
Roll turner	1	.....	6 08	.....
Stockman	1	.....	1 35	.....
Watchmen	7	.....	1 90	.....
Weigher	1	.....	1 35	.....

METALS AND METALLIC GOODS (STEEL RAILS),
PENNSYLVANIA.—ESTAB. No. 434.

Time, 24 hours per day (two turns); — days the past year.

Blacksmiths	7	.....	\$2 10	.....
Blacksmiths' helpers	9	.....	1 25	.....
Blowers	2	.....	2 80	.....
Brakemen	5	.....	1 60	.....
Bricklayers	10	.....	2 70	.....
Buggyman	18	.....	2 48	.....
Buggyman	1	.....	1 65	.....
Carpenters	7	.....	2 30	.....
Catchers	9	.....	2 30	.....
Catchers	3	.....	2 07	.....
Chargers	9	.....	2 93	.....
Chippers and filers	12	.....	1 80	.....
Cinder men	21	.....	2 25	.....
Cleaners-up	6	.....	1 35	.....
Converter bottom- builders	9	.....	3 40	.....
Converter hands	9	.....	2 35	.....
Door hands	6	.....	99	.....

b Youths.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (STEEL RAILS),
PENNSYLVANIA.—ESTAB. No. 434.—Concluded.

Time, 24 hours per day (three turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Door hands.....	a6		\$0 72	
Door hand.....	a1		62	
Drag-outs.....	6		1 15	
Drawers.....	15		2 39	
Drillers.....	2		3 25	
Drillers.....	12		1 88	
Engineers.....	2		2 10	
Engineers.....	41		1 60	
Foremen.....	1		5 20	
Foremen.....	2		2 50	
Foremen.....	2		1 87	
Forgeman.....	1		2 70	
Hammerman.....	1		2 70	
Hammermen.....	12		1 98	
Heaters.....	3		4 68	
Heaters' helpers.....	10		2 25	
Heaters' helpers.....	4		1 50	
Hookers-up.....	2		1 80	
Hot-bed hands.....	12		2 50	
Hot clippers.....	3		2 32	
Hydraulic hands.....	a3		60	
Hydraulic bolsters.....	a3		60	
Inspectors.....	2		2 40	
Laborers.....	50		1 35	
Laborers.....	160		1 20	
Ladle men and pit men.....	61		2 85	
Lever men.....	3		1 35	
Machinists.....	35		2 07	
Machinists' helpers.....	10		1 25	
Markers.....	2		1 62	
Masons.....	2		2 15	
Monkey.....	1		1 15	
Rail loaders.....	18		2 60	
Recorders.....	2		2 34	
Recorders.....	2		1 62	
Regulators.....	12		1 60	
Rollers.....	3		4 32	
Rollers' helpers.....	3		2 07	
Roughers.....	6		4 00	
Runner hands.....	15		1 95	
Shearmen.....	6		2 80	
Spiegel melters.....	3		3 55	
Stockers.....	24		2 12	
Straighteners, cold.....	12		3 22	
Straightening-press hands.....	18		1 35	
Strikers.....	3		1 68	
Telegraph men.....	20		1 67	
Undesignated.....	90		1 90	
Waterers.....	9		1 90	
Waterers.....	2		1 35	
Weighers.....	2		1 80	

METALS AND METALLIC GOODS (PIG IRON), TEN-
NESSEE.—ESTAB. No. 435.

Time, 24 hours per day (two turns); 350 days the past year.

Blacksmith.....	1	\$1 35
Blacksmith's helper.....	1	90
Breakers, ore.....	4	90
Engineer.....	1	2 10
Engineer.....	1	1 80
Engineer.....	1	1 35
Fillers, top.....	2	1 30
Fillers, bottom.....	10	1 10

METALS AND METALLIC GOODS (PIG IRON), TEN-
NESSEE.—ESTAB. No. 435.—Concluded.

Time, 24 hours per day (two turns); 350 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foundry men.....	2		\$3 00	
Keepers.....	2		1 80	
Keepers' helpers.....	2		1 35	

METALS AND METALLIC GOODS (SCALES), VER-
MONT.—ESTAB. No. 436.

Time, 10 hours per day; 300 days the past year.

Blacksmiths.....	8	\$2 10
Engineers.....	5	2 30
Foremen.....	13	3 50
Laborers.....	62	1 10
Machinists.....	10	1 75
Metal workers.....	52	2 20
Moulders.....	31	2 25
Painters.....	15	1 50
Scalers.....	17	1 75
Wood workers.....	24	1 90

METALS AND METALLIC GOODS (PIG IRON), VIR-
GINIA.—ESTAB. No. 437.

Time, 24 hours per day (two turns); 300 days the past year.

Blacksmith.....	1	\$1 50
Breakers, ore.....	4	1 00
Cinder men.....	4	1 00
Engineers.....	2	1 50
Fillers.....	12	1 10
Foundry man.....	1	5 00
Keepers.....	2	1 50
Keepers' helpers.....	2	1 15
Iron carriers.....	2	1 00
Laborers.....	5	90
Watchman.....	1	90

METALS AND METALLIC GOODS (PIG IRON), VIR-
GINIA.—ESTAB. No. 438.

Time, 24 hours per day (two turns); 320 days the past year.

Blacksmith.....	1	\$2 05
Blacksmith's helper.....	1	90
Cart drivers.....	2	1 13
Cart drivers.....	a2	1 50
Cindermen.....	6	1 13
Dumppers.....	2	1 08
Engineers.....	2	1 60
Fillers, bottom.....	16	1 13
Fillers, top.....	4	1 30
Firemen.....	2	1 08
Foundry man.....	1	4 00
Gutter men.....	2	1 17
Iron carriers.....	15	1 10
Keepers.....	6	2 40
Keepers' helpers.....	6	1 45
Laborers.....	8	90
Machinist.....	1	2 50
Stableman.....	1	1 13
Unloaders.....	12	1 08
Weighers.....	2	1 35

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 228.

METALS AND METALLIC GOODS (PIG IRON), VIRGINIA.—ESTAB. No. 439.

Time, 24 hours per day (two turns); 360 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Blacksmith	1		\$3 00	
Blacksmith's helper	1		1 50	
Brakemen	2		1 40	
Carpenter	1		2 13	
Carpenters	2		1 75	
Carpenter	1		1 40	
Cart drivers	2		1 05	
Cinder men	10		1 10	
Engineers	3		2 00	
Fillers, top	4		1 30	
Fillers, bottom	30		1 10	
Firemen	3		1 40	
Foreman	1		2 35	
Foreman	1		2 00	
Foreman	1		1 40	
Graders	13		1 00	
Iron carriers	8		1 15	
Keepers	2		2 30	
Keepers' helpers	6		1 50	
Laborer	1		95	
Ore cleaner	1		1 10	
Ore cleaners	4		95	
Scrapmen	4		1 00	
Stove men	2		1 70	
Unloaders	6		95	
Weighter	1		1 00	
Weighters	2		1 40	

METALS AND METALLIC GOODS (BAR IRON, NAILS), VIRGINIA.—ESTAB. No. 440.

Time, 10 hours per day; — days the past year.

Apprentices	a10		\$0 50	
Blacksmiths	2		2 00	
Blacksmiths' helpers	2		1 10	
Furnace men	2		1 50	
Foremen	3		3 60	
Heater, bar	1		3 50	
Heaters, plate	2		3 50	
Heater's helper, bar	1		1 25	
Heaters' helpers, plate	3		1 25	
Laborers	25		1 10	
Machinist	1		2 75	
Machinist's helper	1		1 50	
Millwright	1		2 25	
Nailers	6		4 50	
Nail feeders	22		1 80	
Puddlers	20		2 85	
Puddlers' helpers	20		1 40	
Roll hands, muck	10		1 50	
Roll hands, plate	8		2 50	
Roll hands, bar	8		2 00	
Shearmen	4		1 10	
Wheelers	2		1 10	

METALS AND METALLIC GOODS (BAR IRON, NAILS), VIRGINIA.—ESTAB. No. 441.

Time, 10 hours per day; 260 days the past year.

Catchers	20		\$1 60	
Heaters, plate	15		4 00	
Heaters, bar	16		3 45	
Heaters' helpers	15		1 60	

METALS AND METALLIC GOODS (BAR IRON, NAILS), VIRGINIA.—ESTAB. No. 441.—Concluded.

Time, 10 hours per day; 260 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Nailers	37		\$4 40	
Nail feeders	148		1 20	
Puddlers	79		2 35	
Puddlers' helpers	169		1 40	
Rollers, plate	6		4 25	
Rollers, bar	8		3 75	
Roughers	24		1 60	
Undesignated	a30		80	

METALS AND METALLIC GOODS (SPIKES, BAR IRON), VIRGINIA.—ESTAB. No. 442.

Time, 8 hours per day; 275 days the past year.

Blacksmiths	6		\$1 90	
Boiler maker	1		1 84	
Carpenters	10		1 50	
Carpenters' helpers	10		85	
Catchers, guide	20		1 38	
Foremen	2		2 25	
Heaters, 18-inch	8		3 50	
Heaters, guide	10		3 02	
Heaters, guide	2		2 43	
Heaters' helpers, guide	10		1 50	
Heaters' helpers, guide	2		1 23	
Laborers	300		90	
Machinists	15		2 00	
Masons	4		3 00	
Millwrights	2		2 25	
Moulders	25		2 00	
Pattern makers	3		2 00	
Puddlers	25		2 40	
Puddlers' helpers	25		1 10	
Roller, guide	1		4 50	
Rollers, 18-inch	4		3 60	
Rollers, guide	5		3 50	
Rollers	4		3 20	
Rollers, muck	2		3 30	
Roll turners	2		3 25	
Roughers, 18-inch	5		2 50	
Roughers, guide	20		2 25	
Roughers, guide	4		2 05	
Scrap men	20		1 50	
Spike catchers	14		3 25	
Spike feeders	10		1 85	

METALS AND METALLIC GOODS (NAILS), WEST VIRGINIA.—ESTAB. No. 443.

Time, 10 hours per day; — days the past year.

Blacksmiths	2		\$2 50	
Bluer	1		4 00	
Bluer's helpers	a2		1 00	
Catchers, plate	2		2 50	
Engineers	2		2 50	
Heaters	7		4 50	
Heaters' helpers	7		1 75	
Hookers-up, plate	2		1 50	
Hot-machine tenders	5		3 50	
Laborers	15		1 25	
Masons	2		3 50	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

METALS AND METALLIC GOODS (NAILS), WEST VIRGINIA.—ESTAB. No. 443—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Nailers.....	33	.....	\$6 00	.....
Nail feeders.....	126	.....	1 50	.....
Packer.....	1	.....	7 00	.....
Packer's helpers.....	223	.....	50	.....
Puddlers.....	36	.....	2 75	.....
Puddlers' helpers.....	36	.....	1 75	.....
Puddlers' helpers.....	36	.....	1 25	.....
Rollers, muck.....	2	.....	5 00	.....
Rollers, plate.....	2	.....	7 00	.....
Rollers' helpers, muck.....	6	.....	2 00	.....
Rollers' helpers, plate.....	2	.....	3 50	.....
Shearman.....	1	.....	8 00	.....
Shearman's helpers.....	3	.....	2 00	.....
Shovers-under.....	5	.....	2 00	.....

MUSICAL INSTRUMENTS AND MATERIALS (ORGANS), MAINE.—ESTAB. No. 444.

Time, 10 hours per day; 308 days the past year.

Action maker.....	1	.....	\$1 50	.....
Action maker.....	1	.....	1 00	.....
Bench-room hands.....	11	.....	1 62	.....
Box-room hand.....	1	.....	1 50	.....
Box-room hand.....	1	.....	1 10	.....
Engineer.....	1	.....	1 50	.....
Finishers.....	8	.....	1 12	.....
Fly finisher.....	1	.....	1 50	.....
Fly finisher.....	1	.....	1 25	.....
Foreman.....	1	.....	2 00	.....
Machinists.....	8	.....	1 62	.....
Teamster.....	1	.....	1 62	.....
Tuner.....	1	.....	3 00	.....
Turner.....	1	.....	2 50	.....
Turner's helper.....	1	.....	1 50	.....
Watchman.....	1	.....	1 35	.....

MUSICAL INSTRUMENTS AND MATERIALS (ORGANS), NEW HAMPSHIRE.—ESTAB. No. 445.

Time, 10 hours per day; 250 days the past year.

Action maker.....	4	.....	\$2 00	.....
Case makers.....	5	.....	1 75	.....
Engineer.....	1	.....	1 66	.....
Fly finishers.....	3	.....	2 00	.....
Laborer.....	1	.....	1 75	.....
Mill hands.....	5	.....	2 00	.....
Packers.....	2	.....	2 50	.....
Tuner.....	1	.....	3 50	.....
Tuner.....	1	.....	1 25	.....
Varnisher.....	1	.....	2 00	.....

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS), NEW YORK.—ESTAB. No. 446.

Time, 10 hours per day; 300 days the past year.

Belly men.....	16	.....	\$3 26	.....
Box-room hands.....	2	.....	3 50	.....
Cabinet makers.....	8	.....	2 75	.....
Case makers.....	13	.....	8 33	.....

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS), NEW YORK.—ESTAB. No. 446—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Case makers.....	6	.....	\$2 91	.....
Case makers.....	4	.....	2 50	.....
Engineer.....	1	.....	3 00	.....
Finishers.....	15	.....	3 23	.....
Fireman.....	1	.....	1 66	.....
Fly finishers.....	7	.....	3 23	.....
Foremen.....	14	.....	3 30	.....
Key makers.....	14	.....	2 66	.....
Klin drier.....	2	.....	2 66	.....
Laborers.....	2	.....	1 53	.....
Machinists.....	2	.....	2 66	.....
Piano movers.....	2	.....	2 58	.....
Pollshers.....	8	.....	3 53	.....
Porters.....	8	.....	1 64	.....
Regulators.....	13	.....	3 23	.....
Sawyer.....	1	.....	3 00	.....
Stringers.....	6	.....	2 75	.....
Teamsters.....	3	.....	2 23	.....
Tuners.....	6	.....	3 23	.....
Tuners and fitters.....	2	.....	2 66	.....
Undesignated.....	26	.....	71	.....
Varnishers.....	28	.....	2 23	.....
Watchman.....	1	.....	1 50	.....
Wrappers.....	2	.....	1 16	.....

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS), NEW YORK.—ESTAB. No. 447.

Time, 10 hours per day; 300 days the past year.

Action adjusters.....	2	.....	\$2 16	.....
Alloy man.....	1	.....	3 66	.....
Belly men.....	6	.....	3 23	.....
Belly men.....	48	.....	2 97	.....
Blacksmiths.....	4	.....	2 37	.....
Blacksmiths' helpers.....	10	.....	1 63	.....
Blockers-out.....	2	.....	3 00	.....
Blockers-out.....	4	.....	1 66	.....
Blockers-out.....	25	.....	1 50	.....
Bolt and nut maker.....	1	.....	1 79	.....
Carpenters.....	7	.....	2 00	.....
Cart drivers.....	3	.....	1 50	.....
Carvers.....	7	.....	3 00	.....
Case makers.....	71	.....	2 50	.....
Case makers.....	33	.....	2 60	.....
Casting cleaners.....	2	.....	1 66	.....
Cupola men.....	2	.....	2 29	.....
Drillers.....	2	.....	3 21	.....
Dowel makers.....	2	.....	2 23	.....
Engineer.....	1	.....	8 23	.....
Engineers.....	3	.....	3 50	.....
Engineers.....	3	.....	2 23	.....
Finishers.....	16	.....	3 21	.....
Finishers.....	25	.....	2 91	.....
Finishers.....	10	.....	2 66	.....
Finishers.....	19	.....	2 25	.....
Firemen.....	4	.....	1 66	.....
Firemen.....	5	.....	1 50	.....
Fitters.....	4	.....	2 50	.....
Fitters.....	12	.....	2 16	.....
Fly finishers.....	7	.....	2 66	.....
Foreman.....	1	.....	6 66	.....
Foremen.....	21	.....	4 60	.....
Foremen.....	3	.....	3 23	.....
Foremen.....	9	.....	2 72	.....
Foundry hands.....	12	.....	1 66	.....
Frame makers, steel.....	6	.....	2 41	.....
Fraisers.....	3	.....	2 16	.....
Gluer.....	1	.....	2 60	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS),
NEW YORK.—ESTAB. No. 447—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Glaziers	10		\$1 75	
Hammer maker	1		2 16	
Ivory cutters	3		2 50	
Japaners	2		2 33	
Joiners	12		2 00	
Key makers	20		1 83	
Kiln driers	10		1 50	
Laborers	15		1 83	
Laborers	47		1 43	
Locksmiths	25		1 66	
Lumber handlers	44		1 54	
Machinists	9		3 00	
Machinists	8		2 50	
Melters	2		2 21	
Moulders, composition				
tion	2		4 00	
Moulders	6		3 29	
Oilers	3		1 50	
Ornameters	2		2 00	
Painter	1		2 33	
Pattern maker	1		3 00	
Planners	2		2 00	
Plate grinders	2		1 66	
Polishers	24		2 31	
Polishers	18		1 62	
Porters	11		2 16	
Pressmen	6		1 83	
Repairers	7		2 00	
Regulators	2		5 00	
Regulators	6		3 00	
Regulators	5		2 55	
Sawyers	14		2 16	
Saw-mill hands	18		1 66	
Scrapers	4		2 16	
Sounding-board binders	2		2 00	
Sounding-board makers	6		2 16	
Steamers	2		1 66	
Stringers	12		2 55	
Teamsters	24		2 14	
Tone-pulsator makers	2		2 46	
Top makers	4		2 16	
Top makers	6		2 00	
Tuners	3		4 66	
Tuners	12		2 79	
Tuners	2		2 05	
Undesignated	63		1 87	
Undesignated	a108		66	
Varnishers	47		2 00	
Varnish mixer	1		3 00	
Venier cutters	5		2 00	
Watchmen	4		1 62	
Watchmen	4		1 83	
Windlass tenders	2			

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS),
NEW YORK.—ESTAB. No. 448.

Time, 10 hours per day; 300 days the past year.

Belly men	4		\$3 88	
Belly men	4		2 96	
Belly-man's helper	1		1 00	
Box-room hands	3		2 37	
Cabinet makers	9		2 72	

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS),
NEW YORK.—ESTAB. No. 449—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Case makers	12		\$3 00	
Case makers	6		2 54	
Case makers	2		3 29	
Case makers	4		2 04	
Case maker	1		1 67	
Engineer	1		3 00	
Finishers	3		3 99	
Finishers	7		3 33	
Finishers	6		2 85	
Fitters	15		2 67	
Foremen	2		4 00	
Foremen	12		3 37	
Foreman	1		3 17	
Key makers	15		2 66	
Kiln driers	9		3 00	
Laborers	9		1 50	
Laborers	3		1 83	
Machinist	1		2 67	
Piano movers	2		2 50	
Polishers	11		2 52	
Porters	9		1 63	
Regulators	3		4 49	
Regulators	10		3 38	
Regulators	3		3 17	
Regulator	1		3 19	
Sawyer	1		3 00	
Stringers	6		2 63	
Sweeper	1		96	
Teamsters	4		2 37	
Tuners	7		3 23	
Tuner	1		2 00	
Turners	4		2 67	
Undesignated	1		2 50	
Undesignated	2		1 63	
Undesignated	1		1 25	
Undesignated	32		2 24	
Varnishers	1		1 83	
Watchman	1		1 00	
Wrapper	1			

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS),
NEW YORK.—ESTAB. No. 449.

Time, 10 hours per day; 300 days the past year.

Belly men	25		\$2 83	
Box-room hands	2		1 50	
Case makers	22		2 37	
Fly finishers	16		2 41	
Foremen	3		2 67	
Key makers	10		2 00	
Piano movers	2		2 17	
Regulators	6		3 00	
Teamsters	3		2 00	
Undesignated	a18		76	
Varnishers	20		2 00	

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS),
NEW YORK.—ESTAB. No. 450.

Time, 10 hours per day; 300 days the past year.

Assorters	8		\$1 50	
Assorters' helpers	a4		50	
Blacksmiths	2		2 00	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

MUSICAL INSTRUMENTS AND MATERIALS (PIANOS),
NEW YORK.—ESTAB. No. 450—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders		18		\$1 50
Carpenters	4		\$2 00	
Carvers	7		2 50	
Driers	4		1 50	
Finishers		a10		1 25
Firemen	2		2 00	
Foremen	2		3 00	
Foreman	1		2 33	
Foremen	4		2 00	
Foresters	10		1 00	
Fullers	20		1 50	
Layers-out	4		2 00	
Layers-out	6		1 50	
Loggers	4		1 50	
Loggers	2		1 26	
Lumbermen	39		1 44	
Lumbermen	40		1 20	
Lumber handlers	8		2 00	
Lumber handlers	a12		50	
Machinists	3		2 00	
Overseers	2		3 20	
Overseer's assistant	1		2 00	
Sawyers and planers	9		1 50	
Sawyers and planers	10		1 00	
Sawyers' helpers	2		1 00	
Saw filer	1		3 00	
Saw filer	1		2 00	
Sewers, hand	60		1 50	
Spare hand	1		1 25	
Teamsters	8		1 50	
Undesignated	11		1 25	
Undesignated	a4		50	

OILS AND ILLUMINATING FLUIDS (LIXSEED OIL),
NEW YORK.—ESTAB. No. 451.

Time, 10 hours per day; 304 days the past year.

Barrellers, oil	3		\$1 25	
Boilers, oil	2		1 25	
Barrel washers	2		1 25	
Cake moulders	12		1 33	
Carpenter	1		2 00	
Coopers	4		2 00	
Engineers	2		1 50	
Laborers	39		1 25	
Machinist	1		2 00	
Packers	6		1 25	
Painters	2		1 25	
Pressmen	12		1 66	
Seed-room hands	10		1 25	
Spare hands	3		1 25	
Teamsters	2		1 60	
Trimmers	12		1 33	
Watchmen	2		1 25	

OILS AND ILLUMINATING FLUIDS (REFINED OIL, 110°
TEST), PENNSYLVANIA.—ESTAB. No. 452.

Time, 10 hours per day; 304 days the past year.

Coopers	32		\$1 75	
Firemen	2		1 92	
Foreman	2		2 86	
Laborers	7		1 50	

OILS AND ILLUMINATING FLUIDS (REFINED OIL, 110°
TEST), PENNSYLVANIA.—ESTAB. No. 453—Concluded.

Time, 10 hours per day; 304 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Painter	1		\$2 50	
Stillmen	4		2 37	
Undesignated	3		2 16	

OILS AND ILLUMINATING FLUIDS (REFINED OIL, 110°
TEST), PENNSYLVANIA.—ESTAB. No. 453.

Time, 10 hours per day; 310 days the past year.

Coopers	15		\$1 75	
Gluer	1		2 00	
Laborers	6		1 50	
Stillmen	2		2 25	
Teamsters	3		1 66	
Treater	1		2 50	

PAPER (PRINTING PAPER), CALIFORNIA.—ESTAB.
No. 454.

Time, 24 hours per day (two turns); 226 days the past year.

Engineer	1		\$4 00	
Foreman	1		3 00	
Machine-room hands	3		2 00	
Pickers	9		1 35	
Pulp makers	3		2 00	
Rag-room hands	18		1 35	

PAPER (PRINTING PAPER), DELAWARE.—ESTAB.
No. 455.

Time, 24 hours per day (two turns); 292 days the past year.

Blacksmiths and millwrights	5		\$3 50	
Calenderers	6		1 70	
Engineers	6		1 80	
Finishers	7		2 80	
Foreman	1		4 00	
Foreman	1		1 90	
Laborers	6		1 50	
Machine tenders	13		1 70	
Machine-room hands		10		\$0 80
Rag cutters	6	17	1 50	70
Washers	17		1 60	

PAPER (PRINTING PAPER), DELAWARE.—ESTAB.
No. 456.

Time, 24 hours per day (two turns); 300 days the past year.

Engineers	4		\$2 00	
Finishers	6		3 00	
Foreman	1		3 84	
Laborers	3		1 50	
Machinists	2		2 80	
Machine tenders	6		2 75	
Machine tenders	7		1 50	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 228.

PAPER (PRINTING PAPER), DELAWARE.—ESTAB.
No. 456.—Concluded.

Time, 24 hours per day (two turns); 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Machine tenders	12		\$1 00	
Rag cutter	1		2 00	
Rag cutters	5		1 50	
Rag-engine tenders	6		2 33	
Rag-engine tenders	2		1 83	
Rag-engine tenders	8		1 50	
Rag-room hands	22	6	65	\$0 70

PAPER (WRAPPING PAPER), DELAWARE.—ESTAB.
No. 457.

Time, 24 hours per day (two turns); 300 days the past year.

Engineers	2		\$1 50	
Laborers	8		1 65	
Machine tenders	4		1 80	
Machine-room hands		6		\$1 75
Rag-engine tenders	3		1 75	

PAPER (PRINTING PAPER), MAINE.—ESTAB. No.
458.

Time, 24 hours per day (two turns); — days the past year.

Engineers	8		\$2 00	
Finishers	4		2 00	
Foremen	10		1 35	
Foreman	1		4 00	
Laborers	20		1 25	
Machine tenders	8		2 40	
Machine tenders' helpers	8		1 40	
Rag cutters		25		\$0 90
Rag-room hands	211		70	
Warehouse men	6		1 75	

PAPER (WRAPPING PAPER), MAINE.—ESTAB. No.
459.

Time, 24 hours per day (two turns); — days the past year.

Beaters	2		\$1 90	
Beaters	4		1 50	
Bleacher	1		1 75	
Bleachers	3		1 50	
Cutters		6		\$0 75
Engineer	1		2 50	
Finisher	1		2 00	
Finisher	1		1 50	
Finisher		1		1 00
Fireman	1		1 75	
Machinist	1		2 50	
Machine tenders	2		2 50	
Machine tenders	2		1 50	
Machine tender	1		1 25	
Teamsters	3		1 50	
Wheelwright	1		2 50	
Wheelwright	1		1 75	
Yard hands	8		1 50	

PAPER (PRINTING PAPER), MASSACHUSETTS.—ESTAB.
No. 460.

Time, 24 hours per day (two turns); 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Finishers	28	12	\$1 64	\$1 08
Finisher	21		48	
Machine tenders	5		3 90	
Machine tenders	6		1 64	
Rag-engine tenders	4		3 00	
Rag-engine tenders	8		1 62	
Rag-room hands	17		1 32	
Rag-room hands		52		90
Repair hand	1		4 20	
Repair hands	4		2 70	

PAPER (WRITING PAPER), MASSACHUSETTS.—ESTAB.
No. 461.

Time, 24 hours per day (two turns); — days the past year.

Calenderers		12		\$1 30
Counters and folders		3		1 50
Engineers	2		\$3 00	
Finishers	9		2 00	
Foreman	1		2 25	
Foremen	8		1 50	
Jogglers	2		1 25	
Laborers	4		1 25	
Machine tenders	2		3 30	
Machine-tenders' helpers	2		1 80	
Overlookers		8		90
Platers		6		90
Rag-room hand	1		2 75	
Rag-room hands	7		1 25	
Rag-room hands		20		1 00
Rulers		5		1 00
Repair hands	2		2 25	
Sorters		7		1 00
Sorters		4		1 25
Stamper and sealer		1		1 50
Watchman and fireman	2		2 40	

PAPER (WRITING PAPER), MASSACHUSETTS.—ESTAB.
No. 462.

Time, 24 hours per day (two turns); — days the past year.

Bleachers	4		\$1 64	
Boiler tenders	2		2 40	
Boiler tenders	2		1 98	
Calenderers	3		2 10	
Calenderer	1		3 60	
Calenderer	1		2 70	
Calenderer	1		1 80	
Calenderers	11		1 64	
Calenderers	18		1 50	
Cutter	1		2 10	
Cutter	1		1 80	
Cutter	1		1 64	
Cutters	3	16	1 50	\$1 08
Finishers	3		2 70	
Finishers	2		1 98	
Finishers	4		1 80	
Finishers	2		1 64	
Laborer	1		2 40	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

PAPER (WRITING PAPER), MASSACHUSETTS.—ESTAB. No. 462—Concluded.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Laborers	10		\$1 64	
Machine tenders	6		3 80	
Machine tenders	2		1 80	
Machine tenders	4		1 61	
Machine tenders	6		1 50	
Rag-engine tenders	4		2 70	
Rag-engine tenders	2		1 80	
Rag-engine tenders	19		1 64	
Rag-room hand	1		3 30	
Rag-room hands	12		1 50	
Rag-room hands	6	60	1 20	\$1 08
Repair hand	1		3 60	
Repair hand	1		3 00	
Repair hands	4		2 40	
Repair hand	1		1 64	
Watchman	1		1 50	

PAPER (WRITING PAPER), MASSACHUSETTS.—ESTAB. No. 463.

Time, 24 hours per day (two turns); 300 days the past year.

Finisher	1		\$2 75	
Finisher	1		2 50	
Finishers	2		1 60	
Finishers	7		1 50	
Finishers	11		1 00	
Finishers	a2	12	80	\$0 80
Laborer	1		2 00	
Laborers	8		1 10	
Machine tender	1		3 90	
Machine tenders	4		3 60	
Machine tenders	4		1 50	
Machine tenders	4		1 20	
Rag-engine tenders	2		3 00	
Rag-engine tenders	2		1 80	
Rag-engine tenders	4		1 50	
Rag-engine tenders	12		1 38	
Rag-room hands	10	48	1 40	80
Rag-room hands	a5		75	
Repair hand	1		5 00	
Repair hand	1		3 50	
Repair hands	3		2 50	
Repair hand	1		2 25	
Ruler	1		5 00	
Ruler	1		3 50	
Rulers	6		1 50	
Rulers	2	16	1 40	1 20
Rulers		10		1 05

PAPER (WRITING PAPER), MASSACHUSETTS.—ESTAB. No. 464.

Time, 24 hours per day (two turns); 300 days the past year.

Boiler tenders	2		\$2 40	
Box maker	1		2 00	
Calenderer	1		2 75	
Calenderers	2		1 50	
Engineers	4		3 00	
Engineers' helpers	4		1 87	
Foreman	1		4 50	

PAPER (WRITING PAPER), MASSACHUSETTS.—ESTAB. No. 464—Concluded.

Time, 24 hours per day (two turns); 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foreman	1		\$2 00	
Foreman	1		2 00	
Jogglers	3		1 50	
Laborers	4		1 64	
Laborers	4		1 25	
Machine tenders	4		3 30	
Machine tenders	4		1 50	
Machine tenders	10	75	1 37	\$0 90
Repair hand	1		2 50	
Repairer's helpers	2		2 00	
Ruler	1		3 00	
Ruler's helper	1		1 50	
Sealer	1		1 50	
Trimmers	2		3 00	
Trimmer	1		2 00	
Undesignated	7		1 50	
Undesignated	60		1 00	
Warehouse men	2		1 50	
Yardmen	2		1 25	

PAPER (ENAMELLED AND FANCY PAPER), MASSACHUSETTS.—ESTAB. No. 465.

Time, 10 hours per day; — days the past year.

Engineer	1		\$2 50	
Finishers		4		\$1 10
Fireman	1		1 50	
Foremen	2		2 50	
Laborers	6		1 50	
Packers	3		1 40	

PAPER (ENVELOPES), MASSACHUSETTS.—ESTAB. No. 466.

Time, 10 hours per day; — days the past year.

Cutters	2		\$1 75	
Foremen	3		1 40	
Machine tenders	30		1 25	
Packers	2		1 50	
Watchman	1		1 50	

PAPER (PRINTING PAPER), NEW HAMPSHIRE.—ESTAB. No. 467.

Time, 24 hours per day (two turns); — days the past year.

Finishers	8		\$2 00	
Foremen	3		3 00	
Foremen	2		3 25	
Grinders	25		1 40	
Machine tenders	30		2 00	
Rag-engine tenders	30		1 50	
Rag-room hands	30	36	1 40	\$1 00
Repair hands	10		2 00	
Woodmen	11		1 40	
Yard hands	25		1 40	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

PAPER (WRAPPING PAPER), OREGON.—ESTAB. No. 468.

Time, 24 hours per day (two turns); — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cutters	25	.....	\$0 87	.....
Engineers	5	.....	2 25	.....
Finishers .....	.....	5	.....	\$1 75
Laborers	15	.....	1 75	.....
Machine tenders	5	.....	2 75	.....
Rag-room hands .....	.....	10	.....	1 00

PAPER (CARD, PRINTING, WRAPPING PAPER), VERMONT.—ESTAB. No. 469.

Time, 24 hours per day (two turns); — days the past year.

Finishers	10	.....	\$3 00	.....
Foremen	4	.....	3 00	.....
Machine tenders	35	.....	2 00	.....
Rag-engine tenders	48	.....	1 50	.....
Rag-room hands	30	25	1 40	\$0 75
Repair hands	20	.....	2 00	.....
Yard hands	30	.....	1 40	.....

PRINT WORKS (PRINTING), MASSACHUSETTS.—ESTAB. No. 470.

Time, 10 hours per day; — days the past year.

Ageing and steam- ing hands	31	.....	\$1 05	.....
Back tenders	224	.....	1 75	.....
Bleachers	21	.....	1 15	.....
Bleachers	251	.....	1 60	.....
Colorers	36	.....	1 20	.....
Colorers	23	.....	4 50	.....
Die makers	2	.....	2 20	.....
Die-maker's helpers	58	.....	1 15	.....
Dyers	234	.....	4 70	.....
Engravers	7	.....	3 80	.....
Engravers	3	.....	1 60	.....
Engraver's helpers	20	.....	1 20	.....
Finishers	30	.....	85	.....
Finishers	25	.....	65	.....
Folders	14	.....	1 60	.....
Folders	6	.....	1 30	.....
Iron workers	27	.....	2 40	.....
Masons	2	.....	6 90	.....
Overseers	8	.....	5 50	.....
Overseers	3	.....	4 00	.....
Overseers	4	.....	3 50	.....
Overseers	2	.....	3 00	.....
Overseers	2	.....	3 75	.....
Overseers	6	.....	2 35	.....
Overseer	1	.....	2 00	.....
Overseers	5	.....	1 70	.....
Overseers	7	.....	1 40	.....
Overseer	1	.....	1 20	.....
Packers	18	.....	65	\$0 90
Packers	24	7	.....	.....
Painter	1	.....	1 60	.....
Polishers	2	.....	1 40	.....
Printers	19	.....	4 80	.....
Printers' helpers	6	.....	1 70	.....
Rollers	4	.....	4 30	.....
Rollery helpers	4	.....	1 20	.....

a Youth.

b This establishment is connected with No. 305.

PRINT WORKS (PRINTING), MASSACHUSETTS.—ESTAB. No. 471.—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Singeing-room hands	18	.....	\$1 10	.....
Sketchers	5	.....	4 50	.....
Sketchers' helpers	23	.....	1 50	.....
Undesignated	12	.....	1 40	.....
Undesignated	70	.....	1 10	.....
Undesignated	224	.....	1 75	.....
Washers	30	2	1 05	\$0 90
Washers	217	.....	65	.....
White-room hands	30	.....	1 10	.....
White-room hands	225	.....	60	.....
Wood workers	19	.....	1 60	.....

PRINT WORKS (PRINTING), MASSACHUSETTS.—ESTAB. No. 471.

Time, 10 hours per day; — days the past year.

Ageing and steam- ing hands	6	.....	\$1 25	.....
Back tenders	4	.....	1 33	.....
Bleachers	8	.....	1 00	.....
Calenderers and fin- ishers	10	.....	2 00	.....
Calenderers and fold- ers .....	.....	14	.....	\$1 00
Colorers	6	.....	1 33	.....
Driers	28	.....	1 00	.....
Engravers	4	.....	4 00	.....
Photographers .....	.....	3	.....	91
Platform boys	24	.....	75	.....
Printers	4	.....	2 50	.....
Shearers and winders	6	.....	1 16	.....

PRINT WORKS (PRINTING), NEW HAMPSHIRE.—ESTAB. No. 472.b

Time, 10 hours per day; 300 days the past year.

Ageing and steam- ing hands	2	.....	\$1 60	.....
Ageing and steam- ing hands	23	.....	1 20	.....
Ageing and steam- ing hands	28	.....	75	.....
Back tenders	12	.....	1 25	.....
Bleacher	1	.....	2 60	.....
Bleacher	1	.....	2 00	.....
Bleachers	28	.....	1 25	.....
Bleachers	29	.....	95	.....
Bleachers	216	.....	75	.....
Carpenters	3	.....	1 60	.....
Carpenters' helpers	8	.....	1 35	.....
Clammer	1	.....	4 00	.....
Clammer's helper	1	.....	1 66	.....
Colorer	1	.....	2 75	.....
Colorer	1	.....	2 25	.....
Colorers' helpers	31	.....	1 20	.....
Colorers' helper	21	.....	1 00	.....
Die cutter	1	.....	4 66	.....
Die-cutter's helper	1	.....	1 00	.....
Dyers	7	.....	1 50	.....
Dyers	28	.....	1 25	.....
Dyers' helpers	27	.....	85	.....
Dyers' helpers	23	.....	40	.....

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

PRINT WORKS (PRINTING), NEW HAMPSHIRE.—ESTAB. No. 472—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engineer	1		\$3 00	
Engravers	2		2 91	
Engravers	2		4 66	
Engravers' helper	1		2 00	
Finishers	30		1 30	
Finishers	a5	34	95	\$0 90
Firemen	7		1 50	
Foreman	1		4 16	
Laborer	1		2 25	
Laborer	1		1 80	
Laborers	22		1 10	
Machinists	12		2 15	
Machine setter	1		2 00	
Machine-setter's helper	1		1 80	
Machine-setter's helpers	6		1 25	
Mangler	1		1 50	
Mangler's helpers	7		1 20	
Mangler's helpers	a3		60	
Pantographer	1	20	1 25	1 00
Pantograph setter	1		3 50	
Pantograph-setter's helper	1		1 66	
Plate cutters	4		4 33	
Plate-cutter's helper	1		1 66	
Printers	11		4 83	
Printer	1		3 50	
Printers	2		1 75	
Shearer	1		2 00	
Shearers	3		1 10	
Shearers' helpers	a6	4	55	91
Sketchers	6		4 66	
Sketcher's helper	1		1 66	
Sketcher's helper	1		1 33	
Sketcher's helper	a1		75	
Undesignated	a3		83	
Undesignated	a22		66	
Undesignated	a13		54	
Watchmen	5		1 50	
White-room hand	1		1 50	
White-room hands	6	1	1 15	91
Yardmen	10		1 20	

PRINT WORKS (PRINTING), NEW JERSEY.—ESTAB. No. 473.

Time, 10 hours per day; 300 days the past year.

Bleachers	30		\$1 00	
Colorers and dyers	40		1 25	
Engravers	25		2 00	
Finishers	60		1 00	
Laborers	40		1 00	
Printers	10		4 00	

PRINT WORKS (BLEACHING), NEW YORK.—ESTAB. No. 474.

Time, 11 hours per day; 300 days the past year.

Bleachers	7		\$1 17	
Expresser	1		2 50	
Folders	3	26	1 50	\$0 83
Foremen	2		3 00	
Packer	1		2 00	
Undesignated	a3		87	

a Youth.

PRINT WORKS (PRINTING), PENNSYLVANIA.—ESTAB. No. 475.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Engravers	19		\$3 33	
Foremen	5		5 83	
Foremen	5		4 17	
Foremen	10		3 00	
Laborers	74		1 50	
Laborers	200		1 25	
Machinists	19		2 00	
Printers	14		4 16	
Undesignated	a97	37	83	\$0 83
Undesignated	a100	28	58	1 00
Undesignated	b149		45	

RAILROAD CONSTRUCTION (FREIGHT AND PASSENGER CARS), NORTH CAROLINA.—ESTAB. No. 476.

Time, 10 hours per day; 300 days the past year.

Carpenter	1		\$2 25	
Carpenters	2		1 75	
Carpenters	4		1 50	
Carpenters	4		1 25	
Carpenters	a2		75	
Engineer	1		1 25	
Fireman	1		80	
Laborers	13		80	
Laborers	a2		50	
Sawyer, machine	1		2 25	
Sawyers, machine	4		1 25	

RAILROAD CONSTRUCTION (LOCOMOTIVE AND FREIGHT CARS), NORTH CAROLINA.—ESTAB. No. 477.

Time, 10 hours per day; 300 days the past year.

Apprentices	a13		\$0 50	
Blacksmiths	2		2 35	
Blacksmiths	2		1 75	
Blacksmiths' helpers	7		1 00	
Carpenters	2		2 00	
Carpenters	4		1 75	
Engineers, locomotive	27		2 83	
Firemen	27		80	
Laborers	15		1 00	
Machinists	3		2 38	
Machinists	3		1 75	
Moulders	2		2 35	
Painter, decorative	1		3 50	
Painters	3		1 50	

RAILROAD CONSTRUCTION (FREIGHT CARS AND CAR WHEELS), TENNESSEE.—ESTAB. No. 478.

Time, 10 hours per day; — days the past year.

Blacksmith	3		\$2 10	
Blacksmiths' helpers	3		1 00	
Carpenters	3		1 58	
Core maker	1		1 35	
Cupola man	1		1 85	
Engineer	1		1 25	
Foremen	2		3 25	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

RAILROAD CONSTRUCTION (FREIGHT CARS AND CAR WHEELS), TENNESSEE.—ESTAB. NO. 478.—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foreman	1		\$2 50	
Laborers	3		1 50	
Laborers	5		90	
Machinists	2		2 25	
Machinists' helpers	4		1 00	
Moulders	3		2 25	
Moulders' helpers	3		1 00	
Pattern makers	3		2 50	

RAILROAD CONSTRUCTION (PASSENGER CARS), VERMONT.—ESTAB. NO. 479.

Time, 10 hours per day; — days the past year.

Apprentices	2		\$1 13	
Blacksmiths	6		1 50	
Blacksmiths' helper	4		1 12	
Boiler maker	1		1 80	
Engineer	1		1 90	
Foreman	1		2 48	
Foreman	1		2 25	
Foreman	1		2 16	
Laborers	9		1 12	
Machinist	1		3 46	
Machinists	15		2 25	
Machinists' helpers	6		1 65	
Painters	4		2 00	
Pattern maker	1		2 25	
Repair hand	1		1 80	
Repair hands	32		1 25	
Tinsmith	1		1 66	
Tinsmith's helper	1		1 25	
Undesignated	1		2 45	
Watchmen	2		1 12	
Wood workers	14		1 50	

RAILROAD CONSTRUCTION (FREIGHT AND PASSENGER CARS), VIRGINIA.—ESTAB. NO. 480.

Time, 10 hours per day; 300 days the past year.

Apprentices	a14		\$0 70	
Blacksmiths	17		2 30	
Blacksmiths' helpers	19		1 90	
Boiler makers	12		2 30	
Boiler-makers' helpers	12		1 30	
Bricklayer	1		3 00	
Carpenters	38		2 10	
Engineer, stationary	7		1 80	
Laborers	68		1 10	
Machinists	41		2 30	
Moulders	22		2 20	
Painters	7		1 80	
Pattern makers	3		2 70	
Planers	8		2 80	
Pipe fitters	7		2 80	
Shop hands	25		1 40	
Tinsmiths	6		2 10	

RUBBER (RUBBER BOOTS, SHOES, ARCTICS), MASSACHUSETTS.—ESTAB. NO. 481.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Boot makers	200		\$2 30	
Cutters	100		2 40	
Cutters	75		1 30	
Dyer	1		2 75	
Engineers	4		2 50	
Firemen	11		1 75	
Grinders	150		1 25	
Heaters	4		2 50	
Laborers	47		1 85	
Machinists and car-penters	12		2 25	
Shoemakers		600		\$1 16
Teamster	1		2 25	
Varnishers	20		1 83	

RUBBER (RUBBER BOOTS, SHOES, ARCTICS), NEW JERSEY.—ESTAB. NO. 482.

Time, 10 hours per day; 292 days the past year.

Boot makers	47		\$1 50	
Box makers	7		1 50	
Cutters	55		1 75	
Mill hands	82		1 25	
Packers	6		1 75	
Packers	a10		65	
Shoemakers	a65		1 25	
Shoemakers		141		\$1 00
Varnishers	16		1 75	

RUBBER (RUBBER BOOTS, SHOES, ARCTICS), NEW JERSEY.—ESTAB. NO. 483.

Time, 10 hours per day; 292 days the past year.

Boot makers	45		\$1 60	
Boot makers	a22		1 00	
Cutters	55		1 67	
Cutters	a17		60	
Mill hands	36		1 25	
Mill hands	a4		67	
Packers	9	9	1 84	\$0 84
Shoemakers	42	194	1 25	1 00
Varnishers	16		2 00	

RUBBER (RUBBER BELTING, HOSE), NEW JERSEY.—ESTAB. NO. 484.

Time, 10 hours per day; 300 days the past year.

Hose makers	20		\$1 75	
Laborers	96		1 33	
Mill hands	14		1 75	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

SILK (MACHINE TWIST, SEWING), CONNECTICUT.—
ESTAB. No. 485.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Doublers		10		\$1 00
Dyers	2		\$2 00	
Dyers	2		1 50	
Engineer	1		2 62	
Engineer	1		2 00	
Matchers		2		1 00
Overseers	2		4 00	
Overseers	2		2 50	
Rulers		3		1 00
Spare hands		2		1 00
Spare hands		2		75
Spoolers		25		1 00
Stretchers	3			75
Twisters	2		1 17	
Twisters	3		90	
Watchman	1		2 00	
Winders		36		1 00

SILK (RIBBONS, DRESS GOODS), NEW JERSEY.—
ESTAB. No. 486.

Time, 10 hours per day; 292 days the past year.

Blockers	4		\$1 50	
Foremen	4		5 00	
Pickers		30		\$1 43
Spinners	600		1 00	
Warpers		20		1 66
Weavers	60	180	2 33	2 00
Weavers	60	16	2 66	2 00
Winders		75		1 00
Winders		75		84

SILK (RIBBONS, DRESS GOODS), NEW JERSEY.—
ESTAB. No. 487.

Time, 10 hours per day; 260 days the past year.

Blockers		30		\$1 00
Dyers	30		\$3 00	
Machinists	20		2 25	
Pickers	10	30	2 00	1 12
Warpers	50	30	2 50	1 66
Weavers	75	300	2 50	1 50
Winders		50		1 00

SILK (RIBBONS, PIECE GOODS), NEW YORK,
ESTAB. No. 488.

Time, 10 hours per day; 302 days the past year.

Carpenter	1		\$3 00	
Engineer	1		2 50	
Finishers	5		1 50	
Finishers		20		\$0 75
Foreman	1		3 33	
Hemmers	1	3		1 17
Machinist	1		2 00	
Overseer	1		2 50	
Overseers	2		2 00	
Pickers	2		2 00	
Ribbon cleaners		7		0 83
Spare hands	66		60	
Spoolers and doublers		17		75

SILK (RIBBONS, PIECE GOODS), NEW YORK.—
ESTAB. No. 489—Concluded.

Time, 10 hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Twisters	3		\$1 50	
Warpers	2	28	1 67	\$0 80
Watchman	1		1 43	
Weavers	57	51	1 70	1 11
Winders		6		82

SILK (TWIST), NEW YORK.—ESTAB. No. 490.

Time, 11 hours per day; 211 days the past year.

Bundler	1		\$2 33	
Bundler	61		87	
Carpenter	1		1 50	
Doublers	64	11	56	\$0 77
Drier		1		1 00
Foremen	2		2 08	
Heater and steamer	1		1 50	
Machinist	1		2 50	
Preparer		1		92
Reelers	67		1 06	
Reelers	69		86	
Sorter and aizer		1		1 00
Spinners	65		79	
Watchman	1		1 50	
Weigher		1		79
Winders	65	16	46	81
Winders		8		61

SILK (TWIST), NEW YORK.—ESTAB. No. 490.

Time, 11 hours per day; 302 days the past year.

Foreman	1		\$3 00	
Machinist	1		2 00	
Spare hands		610		\$0 50
Spinners		6		82
Spinners		19		83
Spinners		20		75
Spoolers		6		83
Twisters		4		83
Watchman	1		1 29	
Winders		6		75

STONE (GRANITE MONUMENTS), MAINE.—ESTAB. No. 491.

Time, 10 hours per day; — days the past year.

Architect	1		\$3 25	
Blacksmiths	5		2 25	
Blacksmiths	6		1 75	
Engineer	1		1 75	
Foreman	1		3 50	
Foremen	3		3 00	
Laborers	12		1 65	
Polishers	2		1 75	
Quarrymen	70		1 00	
Stonecutters	25		3 75	
Stonecutters	50		2 50	
Stonecutters	13		1 75	
Teamsters	4		1 75	
Teamster	1		1 00	

a Youth.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 236.

TOBACCO (CIGARS), CONNECTICUT.—ESTAB. No. 492.

Time 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cigar makers	15	.....	\$2 25	.....
Laborer	1	.....	2 00	.....
Packer	1	.....	3 35	.....
Stripper .....	.....	1	.....	\$1 17
Strippers .....	.....	1	.....	83
Strippers .....	.....	2	.....	58

TOBACCO (CIGARS), ILLINOIS.—ESTAB. No. 493.

Time, 10 hours per day; 288 days the past year.

Bunch breakers .....	.....	3	.....	\$1 33
Bunch breakers .....	.....	17	.....	1 00
Cigar makers .....	.....	10	.....	2 00
Cigar makers .....	.....	45	.....	1 33
Packers	6	.....	\$3 00	.....
Stripper	a1	b13	83	33

TOBACCO (CIGARS), ILLINOIS.—ESTAB. No. 494.

Time, 10 hours per day; 300 days the past year.

Bunch breakers .....	.....	9	.....	\$1 33
Cigar makers	30	.....	\$2 17	.....
Packers	2	.....	3 00	.....
Strippers	a8	.....	75	.....

TOBACCO (CIGARS), ILLINOIS.—ESTAB. No. 495.

Time, 10 hours per day; — days the past year.

Bunch breakers .....	.....	30	.....	\$1 05
Foremen	2	.....	\$2 91	.....
Packers	8	.....	2 50	.....
Rollers	70	.....	1 22	.....
Strippers .....	.....	a38	.....	48

TOBACCO (CIGARS), ILLINOIS.—ESTAB. No. 496.

Time, 10 hours per day; 275 days the past year.

Cigar makers	8	.....	\$2 00	.....
Packer	1	.....	2 67	.....
Strippers	a3	.....	50	.....

TOBACCO (CIGARS), ILLINOIS.—ESTAB. No. 497.

Time, 8 hours per day; 250 days the past year.

Cigar makers	10	.....	\$2 00	.....
Packers	2	.....	2 00	.....
Strippers	a5	.....	42	.....

a Youth,

TOBACCO (CHEWING TOBACCO), ILLINOIS.—ESTAB. No. 498.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Foremen	3	.....	\$3 00	.....
Laborers	5	.....	1 50	.....
Leaf sorters	4	.....	1 20	.....
Pressmen	15	.....	1 50	.....
Strippers	a10	a40	60	\$0 60
Watchman	1	.....	1 50	.....
Wrappers	20	.....	2 00	.....

TOBACCO (CHEWING AND SMOKING TOBACCO), ILLINOIS.—ESTAB. No. 499.

Time, 10 hours per day; 300 days the past year.

Carpenter	1	.....	\$2 00	.....
Cutters	4	.....	2 00	.....
Cutters	4	.....	1 83	.....
Dressers	3	.....	1 33	.....
Engineer	1	.....	2 50	.....
Laborers	2	.....	1 67	.....
Laborers	5	.....	1 25	.....
Leaf sorters .....	.....	6	.....	\$0 92
Packers	4	.....	1 50	.....
Packers .....	.....	15	.....	88
Printers	2	.....	1 67	.....
Strippers .....	.....	5	.....	1 00
Undesignated .....	.....	8	.....	67
Watchman	1	.....	1 57	.....

TOBACCO (CHEWING AND SMOKING TOBACCO), ILLINOIS.—ESTAB. No. 500.

Time, 10 hours per day; 300 days the past year.

Cutters	2	.....	\$2 25	.....
Dressers	3	.....	1 75	.....
Dresser	1	.....	1 25	.....
Dressers	a3	.....	75	.....
Foremen	2	.....	3 00	.....
Leaf sorters .....	.....	a7	.....	\$0 75
Packers	10	.....	1 50	.....
Pressmen	2	.....	1 50	.....
Strippers	b20	b30	33	33
Watchman	1	.....	1 50	.....

TOBACCO (CHEWING TOBACCO), KENTUCKY.—ESTAB. No. 501.

Time, 10 hours per day; 310 days the past year.

Cutters	3	.....	\$1 50	.....
Dressers .....	.....	6	.....	\$1 20
Foremen	3	.....	2 50	.....
Laborers	22	.....	1 20	.....
Leaf sorters	6	.....	1 40	.....
Pressman	1	.....	1 80	.....
Pressmen	4	.....	1 50	.....
Strippers .....	.....	6	.....	1 00
Strippers	a10	a36	80	80
Undesignated	a5	.....	70	.....
Undesignated .....	.....	a7	.....	80
Wrappers	2	4	2 00	2 00

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 236.

TOBACCO (CHEWING TOBACCO), KENTUCKY.—ESTAB. No. 502.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Laborers	4	.....	\$1 50	.....
Laborers	2	.....	1 35	.....
Lump makers	2	.....	1 67	.....
Lump tapper	a1	.....	67	.....
Stemmers .....	.....	10	.....	\$0 83
Wrapper	1	.....	1 00	.....

TOBACCO (CHEWING AND SMOKING TOBACCO), MICHIGAN.—ESTAB. No. 503.

Time, 10 hours per day; 300 days the past year.

Cutters	6	.....	\$2 00	.....
Dressers	12	4	1 50	\$1 00
Foremen	5	.....	2 00	.....
Laborers	4	.....	1 25	.....
Leaf sorters	13	.....	1 50	.....
Packers	23	.....	1 00	.....
Strippers	a4	a51	80	80
Teamster	1	.....	2 67	.....
Undesignated	a5	a28	60	60
Watchman	1	.....	2 00	.....

TOBACCO (CHEWING AND SMOKING TOBACCO), MISSOURI.—ESTAB. No. 504.

Time, 10 hours per day; — days the past year.

Box makers	44	.....	\$1 62	.....
Foremen	2	.....	5 93	.....
Lump makers	98	.....	1 88	.....
Pressmen	80	.....	1 24	.....
Pressmen's helpers	224	.....	1 20	.....
Porters	23	.....	1 47	.....
Repair hands	8	.....	2 99	.....
Stemmers	310	.....	93	.....
Wrappers	24	.....	96	.....

TOBACCO (CHEWING AND SMOKING TOBACCO), MISSOURI.—ESTAB. No. 505.

Time, 10 hours per day; — days the past year.

Cutters	10	.....	\$2 33	.....
Dressers	12	.....	2 00	.....
Engineer	1	.....	5 83	.....
Engineer	1	.....	2 50	.....
Foremen	5	.....	2 66	.....
Forewoman .....	.....	1	.....	\$1 45
Laborers .....	.....	35	.....	80
Packers	6	30	2 00	1 10
Sewers .....	.....	4	.....	1 15
Sorters and mixers	6	.....	1 50	.....
Spreaders	15	.....	2 00	.....
Stringers .....	.....	15	.....	80
Strippers	a30	.....	1 00	.....
Undesignated	2	.....	2 75	.....

a Youth.

TOBACCO (CIGARS), NEW JERSEY.—ESTAB. No. 506.

Time, 9½ hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Cigar maker	1	.....	\$3 40	.....
Cigar makers	13	.....	1 86	.....
Cigar makers	5	.....	1 83	.....
Cigar makers	8	.....	1 68	.....
Cigar makers	4	.....	1 59	.....
Laborer	1	.....	1 00	.....

TOBACCO (CIGARS), NEW JERSEY.—ESTAB. No. 507.

Time, 9 hours per day; 300 days the past year.

Bunch breakers .....	.....	20	.....	\$0 75
Foreman	1	.....	\$2 90	.....
Laborers	4	.....	1 16	.....
Packers	6	.....	1 50	.....
Rollers .....	.....	30	.....	1 00
Strippers .....	.....	a10	.....	66

TOBACCO (CHEWING AND SMOKING TOBACCO), NEW YORK.—ESTAB. No. 508.

Time, 10 hours per day; 304 days the past year.

Cutters	12	.....	\$2 00	.....
Dressers	2	3	2 00	\$1 33
Driers	5	.....	2 00	.....
Engineer	1	.....	3 33	.....
Finishers	3	.....	2 00	.....
Firemen	2	.....	2 00	.....
Lump makers	2	6	1 67	1 33
Packers	5	.....	2 00	.....
Packers .....	.....	50	.....	1 33
Pressmen	5	.....	2 00	.....
Stampers .....	.....	a28	.....	67
Stemmers .....	.....	100	.....	75
Teamsters	2	.....	2 00	.....

TOBACCO (CHEWING TOBACCO), NORTH CAROLINA.—ESTAB. No. 509.

Time, 10 hours per day; 296 days the past year.

Foreman	1	.....	\$1 25	.....
Laborers	3	.....	75	.....
Laborers	a4	.....	40	.....
Lump makers	12	.....	1 00	.....
Mixers	2	.....	1 13	.....
Picker, wrapper	1	.....	1 00	.....
Pickers, wrapper	a7	.....	67	.....
Pressmen	4	.....	1 50	.....
Stemmers	b20	b21	35	\$0 35

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYEES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

TOBACCO (CHEWING TOBACCO). NORTH CAROLINA.—
ESTAB. No. 510.

Time, 11½ hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carpenter	1		\$2 25	
Finishers	a8	5	60	\$0 60
Fireman	1		1 00	
Laborers	9		83	
Leaf sorters		56		55
Lump makers	40		1 50	
Pressmen	12		1 00	
Steamers	2	3	60	45
Stemmers	b10	b10	25	25
Strippers	a53		45	
Teamster	1		75	
Watchmen	2		1 00	
Wrappers		3		75
Wrappers		50		67

TOBACCO (SMOKING TOBACCO). NORTH CAROLINA.—
ESTAB. No. 511.

Time, 10 hours per day; 285 days the past year.

Box makers, paper	6		\$1 00	
Box makers, wood	10		90	
Box makers' helpers	5		67	
Carpenter	1		1 50	
Carpenters	8		1 38	
Cutters	24		67	
Driers	7		1 00	
Engineer	1		1 50	
Feeder, mill	1		60	
Foremen	3		4 00	
Foreman	1		3 00	
Foremen	3		2 50	
Foremen	8		2 00	
Foremen	5		1 50	
Laborers	12		60	
Laborers	12		67	
Machinist	1		3 50	
Machinists	6		1 75	
Mixers	7		60	
Packers	4		75	
Packers	40		60	
Packers	6		50	
Packers	a19		35	
Printer	1		1 25	
Printer	1		1 00	
Stable men	14		60	
Stampers and labelers	2		83	
Stampers and labelers	12	10	67	\$0 50
Stampers and labelers	a35	a30	35	35
Watchmen	2		1 00	

TOBACCO (CIGARS), OHIO.—ESTAB. No. 512.

Time, 9 hours per day; 300 days the past year.

Bunch breakers	25	75	\$1 44	\$1 44
Foremen	4		3 00	
Laborers	7		1 50	
Packers	14		2 16	
Rollers	75	75	1 44	1 44
Strippers		a40		54

a Youth.

TOBACCO (CIGARS), OHIO.—ESTAB. No. 513.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bunch breakers	32	33	\$1 08	\$1 08
Foremen	2		3 00	
Packers	11		2 67	
Rollers	58	27	1 58	1 58
Strippers		a22		54

TOBACCO (CIGARS), OHIO.—ESTAB. No. 514.

Time, 10 hours per day; 295 days the past year.

Bunch breakers	29	38	\$1 50	\$1 00
Packers	16	1	2 25	2 00
Rollers	115	30	1 50	1 00
Strippers	a16	a9	40	33
Wrapper bookers	8	b8	1 00	70

TOBACCO (CIGARS), OHIO.—ESTAB. No. 515.

Time, 9 hours per day; 270 days the past year.

Bunch breakers	5	5	\$1 00	\$1 00
Packers	4		2 00	
Rollers	15	15	1 50	1 50
Strippers		a10		60

TOBACCO (CIGARS), OHIO.—ESTAB. No. 516.

Time, 10 hours per day; — days the past year.

Cigar makers	60		\$1 73	
Foremen	3		2 50	
Packers	5		2 50	
Strippers	a10		51	

TOBACCO (CIGARS), OHIO.—ESTAB. No. 517.

Time, 10 hours per day; 300 days the past year.

Bunch breakers	25	25	\$1 12	\$1 12
Foremen	2		3 00	
Packers	7		2 50	
Rollers	25		1 26	
Rollers		25		1 26
Strippers		a15		42

TOBACCO (STOGIE CIGARS), OHIO.—ESTAB. No. 518.

Time, 8½ hours per day; 300 days the past year.

Bunch breakers		a50		\$0 33
Cuser	1		\$1 25	
Forewoman		1		1 67
Packer		1		58
Rollers		50		58
Strippers		a5		21

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

TOBACCO (CIGARS), RHODE ISLAND.—ESTAB. No. 519.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Apprentice	a1		\$1 50	
Apprentice	a1		1 00	
Cigar makers	3		2 33	
Cigar makers	7		2 17	
Cigar makers	4		1 83	
Laborer	1		1 50	
Packer	1		2 17	
Strippers		4		\$1 00

TOBACCO (CHEWING TOBACCO), VIRGINIA.—ESTAB. No. 520.

Time, 10 hours per day; 300 days the past year.

Branders	7		\$0 90	
Brander	1		75	
Carpenters	4		2 33	
Carpenters	5		1 83	
Carpenters' helpers	a9		67	
Engineer	1		2 33	
Firemen	2		1 45	
Foremen	11		1 42	
Laborers	105		75	
Lump makers	30		1 43	
Lump makers	44		1 00	
Pressmen	62		1 10	
Pressmen	6		1 00	
Pressmen's helpers	b23		30	
Stemmers	a8	163	70	\$0 55
Stemmers	b25	b125	25	25
Strippers	a32		50	
Strippers	b15		40	
Strippers	b13		30	
Wrapper	1		80	
Wrappers		15		50

TOBACCO (CHEWING TOBACCO), VIRGINIA.—ESTAB. No. 521.

Time, 10 hours per day; 296 days the past year.

Foreman	1		\$3 50	
Foreman, assistant	2		1 25	
Laborers	15		1 00	
Lump makers	12		1 20	
Lump makers	8		1 00	
Pickers, wrapper	5		1 00	
Pressmen	15		1 75	
Pressmen's helpers	a4		43	
Receiver	1		1 83	
Stemmers	b8	b19	33	\$0 25
Stemmers	b18	75	25	50
Wrappers		12		80

TOBACCO (CHEWING TOBACCO), VIRGINIA.—ESTAB. No. 522.

Time, 10 hours per day; 300 days the past year.

Brander	1		\$1 50	
Brander	1		80	
Engineer	1		2 00	

a Youth.

TOBACCO (CHEWING TOBACCO), VIRGINIA.—ESTAB. No. 523—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Finishers		4		\$0 50
Fireman	1		\$1 00	
Foremen	3		2 00	
Laborers	15		85	
Lump makers	85		1 10	
Pressmen	20		1 15	
Pressmen's helpers	a2		50	
Stemmers	a40	45	50	50
Undesignated		25		50
Watchmen	2		1 25	

TOBACCO (CHEWING TOBACCO), VIRGINIA.—ESTAB. No. 523.

Time, 10 hours per day; 300 days the past year.

Foremen	3		\$3 00	
Foremen	3		2 00	
Laborers	20		1 00	
Laborers	a10		50	
Lump makers	58		1 00	
Pressmen	20		1 00	
Pressmen's helpers	a10		50	
Stemmers	b25	25	25	\$0 50
Watchman	1		1 67	
Wrappers	a125		50	

TOBACCO (CHEWING TOBACCO), VIRGINIA.—ESTAB. No. 524.

Time, 10 hours per day; 300 days the past year.

Engineer	1		\$1 50	
Fireman	1		1 00	
Foremen	3		1 50	
Laborers	8		90	
Laborers	a25		40	
Lump makers	7		1 30	
Pressmen	4		1 00	
Pressmen's helpers	2		90	
Pressmen's helpers	a4		40	
Stemmers		70		\$0 50
Strippers	a5	5	50	50
Wrappers		14		1 00

TOBACCO (CHEWING TOBACCO), VIRGINIA.—ESTAB. No. 525.

Time, 10 hours per day; 300 days the past year.

Laborers	15		\$0 80	
Lump makers	70		1 50	
Lump makers	12		1 10	
Pressmen	40		1 25	
Stemmers	a35	61	50	\$0 60
Strippers	a20	5	50	60

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 81, also summaries, pages 143 to 224.

TOBACCO (CIGARETTES), VIRGINIA.—ESTAB. No. 526.

Time, 10 hours per day; 302 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Box makers, paper	23	29	\$0 83	\$0 83
Cigarette makers	25	2590	1 00	67
Cutters	1		1 67	
Engineer	1		1 67	
Finisher	2	25	83	83
Foremen	37		1 00	
Laborers	1		2 00	
Operator, cigarette-machine	2			83
Operator's helpers	16			1 00
Package makers	75			83
Stemmers	100			55
Undesignated	23		50	

TOBACCO (STOGIE CIGARS), WEST VIRGINIA.—ESTAB. No. 527.

Time, 10 hours per day; 300 days the past year.

Cigar makers	48		\$1 50	
Foreman	1		2 50	
Packers	2		\$0 60	
Strippers	210			50

VESSELS (STEAMSHIPS), DELAWARE.—ESTAB. No. 528.

Time, 10 hours per day; 300 days the past year.

Blacksmiths	28		\$2 25	
Car builders	286		2 00	
Carpenters, ship	66		2 50	
Casting cleaners	8		1 50	
Chippers and caulkers	51		1 50	
Core makers	4		1 50	
Cupola men	2		1 75	
Fitters	62		2 00	
Flangers	6		3 00	
Holders-on	57		1 40	
Joiners, ship	201		2 00	
Laborers	408		1 20	
Machinists	76		2 37	
Mill hands	19		2 60	
Millwrights	6		2 50	
Moulders	35		2 50	
Painters	140		1 75	
Pattern makers	14		2 50	
Riggers	12		1 62	
Riveters	113		1 75	
Teamsters	12		1 50	
Upholsterers	20		2 00	

VESSELS (STEAMSHIPS), DELAWARE.—ESTAB. No. 529.

Time, 10 hours per day; 300 days the past year.

Apprentices	229		\$0 75	
Blacksmiths	28		2 30	
Blacksmiths' helpers	85		1 17	
Boat cutters	8		1 25	

VESSELS (STEAMSHIPS), DELAWARE.—ESTAB. No. 529—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Brace fitters	7		\$1 67	
Carpenters	30		2 27	
Chippers and caulkers	7		1 50	
Core makers	8		1 95	
Cupola man	1		1 67	
Draughtsmen	3		4 00	
Drillers	2		1 17	
Engineers	3		1 78	
Fitters	1		1 25	
Fitterman	32		1 67	
Furnace men, shaft	1		3 25	
Furnace men, scrap	1		3 25	
Furnace-men's helpers	5		2 50	
Heater boys	4		1 42	
Holders-on	218		50	
Joiners	12		1 30	
Laborers	87		2 00	
Millwrights	172		1 14	
Moulders	7		2 25	
Moulders	2		2 33	
Painters	25		2 25	
Passer boys	20		1 75	
Pattern makers	215		67	
Pinchers	10		2 50	
Riveters	5		1 25	
Riggers	38		1 50	
Rollers	5		1 50	
Sawyer	2		1 63	
Sawyer's helper	1		1 33	
Teamsters	4		1 17	

VESSELS (SAILING VESSELS), MAINE.—ESTAB. No. 530.

Time, 10 hours per day; — days the past year.

Blacksmiths	6		\$1 75	
Carpenters, ship	4		1 75	
Fasteners	20		1 62	
Foremen	4		3 00	
Joiners	15		1 75	
Painters	3		1 50	
Spar makers	4		1 75	

VESSELS (SAILING VESSELS), MAINE.—ESTAB. No. 531.

Time, 10 hours per day; — days the past year.

Blacksmiths	10		\$2 50	
Blacksmiths' helper	1		1 25	
Caulkers	50		1 75	
Carpenters, ship	90		1 62	
Fasteners	20		1 62	
Foreman	1		4 50	
Foreman	1		4 00	
Foreman	1		3 25	
Foreman, assistant	1		2 50	
Joiners	35		1 62	
Mill hand	1		2 00	
Mill hands	9		1 37	
Painters	8		1 67	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishment investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

VESSELS (SAILING VESSELS), MAINE.—ESTAB. No. 532.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Draughtsman	1		\$1 50	
Engineer	1		1 50	
Foundry men	5		2 00	
Laborer	1		1 50	
Machinists	6		2 00	
Pattern makers	2		2 25	
Teamster	1		1 50	

WOODEN GOODS (BARRELS), CALIFORNIA.—ESTAB. No. 533.

Time, 10 hours per day; 275 days the past year.

Coopers	60		\$2 50	
Engineer	1		6 00	
Fireman	1		2 25	
Foreman	1		4 00	
Foreman	1		3 00	
Foreman	1		2 25	
Laborers	a8		75	
Machine hands	2		3 00	
Machine hands	5		2 50	
Machine hands	4		2 00	
Nailers and liners	a17		85	
Oiler	1		2 00	
Raisers	8		2 40	
Shaver	1		2 60	
Sorter	1		2 25	
Teamster	1		2 50	
Treasers	3		2 25	
Trimmers	2		2 50	
Watchmen	2		2 00	
Yard hands	8		1 75	

WOODEN GOODS (SASH, DOORS, BLINDS), INDIANA.—ESTAB. No. 534.

Time, 10 hours per day; 300 days the past year.

Carpenters	37		\$2 25	
Engineer	1		2 00	
Laborers	5		1 50	
Machine hands	10		2 00	
Painters	5		2 20	

WOODEN GOODS (WOODENWARE), VIRGINIA.—ESTAB. No. 535.

Time, 10 hours per day; 300 days the past year.

Bottomers	7		\$1 50	
Bottomers' helpers	a5		50	
Driers	6		1 00	
Engineer	2		2 00	
Fireman	2		1 25	
Laborers	18		1 00	
Machinists	5		1 88	
Machinists' helpers	a2		63	
Matchers	a64		75	
Packers	9		1 10	
Packers	a10		83	
Planers	4		1 25	
Sawyers	20		1 00	
Turners	47		1 60	
Watchman	2		1 25	

a Youth.

b Child.

WOOLLEN GOODS (CLOTH), CALIFORNIA.—ESTAB. No. 536.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	9		\$1 75	
Dresser	1		2 75	
Dyers	4		1 87	
Engineer	1		2 75	
Finishers	8		1 00	
Firemen	1		1 50	
Fuller	1		2 00	
Fullers	8		1 12	
Laborers	6		1 00	
Loom fixer	1		1 75	
Overseer	1		3 87	
Overseer	1		3 50	
Overseer	1		2 50	
Scourer	1		1 66	
Shearer	1		1 16	
Spinners	6		1 00	
Spoolers	a3		75	
Watchman	1		1 67	
Weavers	39		1 50	
Weavers	7		1 00	
Wool sorters	2		1 25	

WOOLLEN GOODS (WOMEN'S DRESS GOODS), CONNECTICUT.—ESTAB. No. 537.

Time, 11½ hours per day; 275 days the past year.

Barbers		4		\$9 90
Carders	8		\$1 25	
Carpenter	1		2 60	
Drawers-in		1		1 20
Driers	2		1 50	
Driers	a2		75	
Dyer	1		3 00	
Dyer	1		2 00	
Dyers	3		1 25	
Finisher	1		1 25	
Finishers	6		90	
Firemen	2		1 50	
Fullers	2		1 10	
Hander-in		b1		40
Machinist	1		2 00	
Overseers	3		3 00	
Overseer	1		2 60	
Second hands	2		1 75	
Sewing-machine operator		1		75
Spinners, mule	12		1 50	
Spoolers		5		75
Watchman	1		1 30	
Weavers		25		1 16
Wave-room hands	4		1 00	

WOOLLEN GOODS (WOMEN'S DRESS GOODS), CONNECTICUT.—ESTAB. No. 538.

Time, 11 hours per day; 300 days the past year.

Barbers		9		\$9 90
Carders	7		\$1 15	
Carders	a9		57	
Carpenter	1		1 50	
Drawers-in		1		1 15
Dressers	4		1 30	
Driers	a3		43	
Dyer	1		3 00	
Dyer	1		1 37	

c Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

WOOLLEN GOODS (WOMEN'S DRESS GOODS), CONNECTICUT.—ESTAB. No. 538—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Dyers	4		\$1 00	
Finishers	7		1 00	
Fireman	1		2 00	
Fuller	1		1 35	
Handers-in		2		\$0 40
Laborer	1		1 25	
Loom fixer	2		1 35	
Machinist	1		1 75	
Overseer	1		2 50	
Overseer	1		2 25	
Overseer	1		2 10	
Overseer	1		2 00	
S. wing-machine operator		1		75
Spinners, mule	17		1 15	
Spoolers		4		70
Second hands	4		1 00	
Teamster	1		1 25	
Watchman	1		1 25	
Weavers		18		1 28
Weavers		18		70

WOOLLEN GOODS (CLOTH), DELAWARE.—ESTAB. No. 539.

Time, 10 hours per day; 308 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burlers		b 10		\$0 66
Carder	1		\$3 00	
Carders	2		1 50	
Carder	1		1 25	
Carders	b 6		1 00	
Carpenter	1		2 25	
Doffers	2		1 00	
Doffers	b 2		70	
Doublers		b 8		66
Drawers-in	2		1 25	
Drawers-in	b 2		50	
Dyer	1		3 00	
Engineer	1		1 83	
Finisher	1		3 00	
Finishers	5		1 25	
Fireman	1		1 16	
Foreman	1		8 33	
Foreman	1		2 66	
Fullers	2		1 33	
Inspector	1		1 83	
Laborers	7		1 25	
Loom fixers	2		2 00	
Overseer	1		1 50	
Packer	1		1 25	
Picker	1		2 00	
Presser	1		1 33	
Shearers		2		1 00
Spinner, mule	1		2 50	
Spiner, mule	1		2 00	
Spinner, mule	1		1 66	
Spoolers		8		1 00
Spool carriers	a 10		50	
Teamsters	3		1 50	
Time keeper	1		1 50	
Twisters		3		75
Warpers	2		2 00	
Watchman	2		1 42	
Weavers	35	5	2 00	2 00
Wool sorters	3		1 25	

a Children.

b Youth.

WOOLLEN GOODS (CLOTH), DELAWARE.—ESTAB. No. 540.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Bobbin carrier	1		\$1 35	
Burlers		b 15		\$0 58
Carders	3		1 33	
Carders	3		1 00	
Carders	b 3		72	
Carpenter	1		2 00	
Carpenters	2		1 50	
Cloth carriers	6		1 00	
Drawer and twister	1		8 00	
Drawers and twisters	b 2		41	
Engineer	1		2 00	
Fullers	2		1 50	
Giggers	3		1 33	
Inspector	1		1 83	
Laborer	1		1 50	
Laborers	8		1 16	
Laborer	b 1		50	
Loom fixers	3		2 25	
Machinist	1		3 00	
Measurer	1		1 00	
Overseer	1		2 70	
Pattern starter	1		2 00	
Pickers	6		1 50	
Pickers	b 10		45	
Presser and breaker	1		1 33	
Presser and breaker	b 1		83	
Scourers	2		1 33	
Shearer	1		1 33	
Shearer's helper	b 1		83	
Spinners, mule	2		2 70	
Spool carrier	b 1		72	
Spoolers		b 6		50
Undesignated	b 6	b 10	72	58
Warpers	8		1 66	
Watchman	1		1 66	
Weavers	22	30	1 25	1 25
Weigher	1		1 25	
Wool sorters	3		1 60	

WOOLLEN GOODS (CLOTH), GREAT BRITAIN.—ESTAB. No. 541.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Beamers	3		\$0 73	
Burlers	b 30		40	
Card cleaners	80		84	
Doublers		16		\$0 44
Dyers	6		92	
Finishers	37		87	
Finishers	b 32		36	
Layers-on		6		44
Loom fixers	6		1 33	
Loom-fixers' helpers	4		80	
Menders		20		40
Pickers	b 36		40	
Repair hands	6		1 15	
Scourers	7		80	
Scourer and dyer	1		80	
Scourers and fullers	8		92	
Spinners, mule	12		88	
Tenters	3		1 58	
Tenters	4		1 18	
Warpers	b 7	4	56	40
Weavers	3	178	83	50
Wool sorter	1		1 20	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 220.

WOOLLEN GOODS (CASSIMERE), ILLINOIS.—ESTAB.
No. 542.

Time, 10½ hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	a4	a5	\$0 58	\$0 58
Dressers		a5		44
Dyers	4		1 35	
Engineer	1		2 88	
Finishers	9	14	1 40	72
Machinist	1		2 12	
Overseers	5		2 88	
Overseer	1		2 40	
Overseer	1		1 92	
Overseer	1		1 44	
Pickers	a2		48	
Second hand	1		1 68	
Spinners	4	5	1 02	1 02
Watchman	1		1 50	
Weavers	2		2 12	
Weavers	26		1 47	
Wool sorters	3		1 92	

WOOLLEN GOODS (JEANS), INDIANA.—ESTAB. No.
543.

Time, 11 hours per day; 300 days the past year.

Burlers		2		\$0 75
Carders	a12			\$0 75
Drawers-in		a3		74
Dyers	3		1 25	
Engineer	1		2 00	
Finishers	2		1 25	
Overseers	4		3 00	
Overseer	1		2 50	
Pickers	2		1 25	
Spinners		20		75
Watchman	1		1 80	
Weavers		20		1 00
Weavers		30		83
Wool sorters	2		1 25	

WOOLLEN GOODS (JEANS, FLANNEL), INDIANA.—
ESTAB. No. 544.

Time, 11 hours per day; 300 days the past year.

Carder	a1		\$0 58	
Carders	b5		42	
Dyer	1		2 50	
Engineer	1		2 00	
Finisher	1		2 50	
Finishers	3		1 25	
Laborers	6		1 00	
Overseer	1		3 00	
Overseer	1		2 00	
Second hand	1		1 50	
Spinners	a2	a4	58	\$0 42
Weavers	14		1 08	
Wool sorter	1		1 25	

WOOLLEN GOODS (FLANNEL, BLANKETS), INDI-
ANA.—ESTAB. No. 545.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carder	1		\$1 00	
Carders	a2		83	
Carders	a2		75	
Carders	a11		67	
Carders	a4		58	
Card cleaner	1		1 50	
Card cleaners	4		1 16	
Card cleaners	2		1 09	
Carpenter	1		2 50	
Carpenter	1		1 75	
Drawers-in	3	2	92	\$0 84
Drawers-in		4		67
Drawers-in		1		58
Dresser	1		1 75	
Dresser	1		1 50	
Dresser	1		1 33	
Dyers	4		1 67	
Dyers	3		1 50	
Dyers	5		1 33	
Dyers	11		1 25	
Dyer	1		1 16	
Dyers	4		1 00	
Dyers' helpers	5		67	
Dyers' helpers	a3		60	
Engineer	1		1 50	
Finisher	1	1	1 50	1 21
Finisher	1		1 16	
Finisher	1		1 12	
Finishers	4		1 00	
Finishers	2		84	
Finishers	a3		75	
Finishers	a20		67	
Finisher	a1		58	
Firemen	4		1 50	
Fuller	1		1 33	
Fuller	1		1 25	
Fullers	5		1 17	
Fullers	6		1 00	
Fuller	a1	a2	83	67
Fullers	a3		58	
Laborer	1		1 33	
Laborer	1		1 17	
Laborers	6		1 00	
Laborer	a1		85	
Loom fixers	2		2 00	
Loom fixer	1		1 75	
Loom fixer	1		1 67	
Loom fixers	2		1 50	
Machinist	1		3 25	
Machinist	1		2 50	
Machinists	3		2 25	
Oiler	1		1 25	
Overseer	1		4 50	
Overseers	2		4 00	
Overseer	1		3 67	
Overseer	1		3 33	
Overseer	1		3 00	
Overseers	2		2 50	
Overseer	1		1 75	
Pickers and driers	2		1 16	
Pickers and driers	18		1 00	
Picker and drier	a1		84	
Pickers and driers	a2		60	
Second hand	1		2 00	
Second hands	2		1 67	

a Youth.

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

WOOLLEN GOODS (FLANNEL, BLANKETS), INDIANA.—ESTAB. No. 545.—Concluded.

Time, 11 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Second hand	1		\$1 33	
Second hand	1		1 16	
Spinner	1		1 00	
Spinners	a15		75	
Spinners	a6		83	
Spinners	a17	a2	67	\$0 67
Spinners	a3	a3	58	50
Spinners	a12		50	
Spinners	a6	a2	46	46
Spinners	a6	a7	42	42
Spinner	a1		29	
Spooler	1	a7	1 50	50
Watchman	1		1 67	
Watchman	1		1 00	
Weavers		107		1 07
Wool sorter	1		2 00	
Wool sorters	4		1 50	
Wool sorter	1		1 25	
Wool sorters	5		1 00	
Wool sorter	a1		83	
Wool sorters	a4		75	

WOOLLEN GOODS (FLANNEL, YARN), INDIANA.—ESTAB. No. 546.

Time, 10 hours per day; 200 days the past year.

Carders	1		\$2 00	
Dyers	2		2 00	
Engineer	1		1 50	
Finisher	1		2 50	
Laborers	4		1 00	
Overseer	1		2 00	
Picker	1		1 00	
Spinners, mule	4		1 25	
Weavers		10		\$1 00
Wool sorter	1		2 00	

WOOLLEN GOODS (FLANNEL, BLANKETS), IOWA.—ESTAB. No. 547.

Time, 10 hours per day; — days the past year.

Carders	3		\$1 25	
Carders	a4		75	
Dyer	1		1 50	
Engineer	1		3 00	
Finishers	2	3	1 50	\$0 75
Foreman	1		4 00	
Foreman	2		2 75	
Foreman	1		2 50	
Laborers	3		1 50	
Packers	3		1 50	
Spinners, mule	1		1 25	
Spinners		3		75
Twisters		a5		60
Weavers	2	15	1 25	1 20
Wool sorter	1		2 00	

a Youth.

WOOLLEN GOODS (JEANS), KENTUCKY.—ESTAB. No. 548.

Time, 11 hours per day; 310 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	4	a17	\$1 75	\$0 66
Dyers	10		1 54	
Engineer	1		2 97	
Finishers	a16		72	
Fireman	1		1 56	
Laborer	1		1 00	
Loom fixers	5		1 75	
Overseers	2		3 52	
Overseers	3		2 97	
Pickers	4		1 20	
Spinners	a4	a44	88	60
Watchman	1		1 50	
Weavers		1 60		60
Wool sorters	5		1 54	

WOOLLEN GOODS (JEANS), KENTUCKY.—ESTAB. No. 549.

Time, 11 hours per day; 310 days the past year.

Carders		4		\$1 10
Carders		a8		66
Dyers	5		\$1 10	
Engineer	1		3 00	
Finishers	b14		83	
Finisher	1		1 43	
Fireman	1		1 65	
Laborers	2		1 87	
Laborers	12		1 25	
Overseers	5		3 00	
Picker	1		1 65	
Pickers	5		99	
Spinners		36		75
Undesignated	b2		83	
Watchmen	1		1 80	
Weavers		1 00		1 10
Wool sorter	1		1 65	
Wool sorters	a7		44	

WOOLLEN GOODS (CASIMERE), MAINE.—ESTAB. No. 550.

Time, 11 hours per day; — days the past year.

Carders		2		\$0 75
Engineers	1		\$1 50	
Finisher	1		1 50	
Foreman	1		3 00	
Picker		1		50
Spinner	1		1 00	
Washer and scourer	1		1 50	
Weavers		2		75

WOOLLEN GOODS (CLOTH), MAINE.—ESTAB. No. 551.

Time, 11 hours per day; — days the past year.

Carders		3		\$0 67
Designer	1		\$3 00	
Dresser	1		1 60	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

WOOLLEN GOODS (CLOTH), MAINE.—ESTAB. No. 551.—Concluded.

Time, 11 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Machinist	1		\$2 00	
Overseers	2		2 75	
Overseer	1		2 50	
Overseer	1		2 25	
Picker	1		80	
Second hands	3		1 45	
Second hands	4		1 15	
Spinners	2		1 00	
Undesignated		4		\$0 75
Weavers		13		1 30
Wool sorter	1		1 75	

WOOLLEN GOODS (WOMEN'S DRESS GOODS), MAINE.—ESTAB. No. 552.

Time, 11 hours per day; — days the past year.

Brush boy	1		\$0 80	
Carders	a8		60	
Dyers	2		1 25	
Drier	1		1 10	
Fireman	1		1 50	
Fuller	1		1 50	
Fuller's helper	1		1 25	
Giggers	2		1 10	
Inspectors	2	6	80	\$0 75
Loom fixers	2		1 75	
Overseers	3		8 00	
Overseers	3		2 25	
Picker	1		1 50	
Presser	1		1 35	
Scourers	3		1 20	
Second hand	1		1 75	
Second hands	8		1 50	
Sewing machine operators		2		80
Shearers	2		1 25	
Spare hand	1		1 25	
Spinners, mule	8		1 60	
Strippers	2		1 25	
Twister	1		80	
Watchman	1		1 25	
Weavers	50		1 40	
Wool sorters	2		1 75	

WOOLLEN GOODS (FLANNEL), MAINE.—ESTAB. No. 553.

Time, 11 hours per day; — days the past year.

Carders	a8		\$0 85	
Carpenter	1		2 00	
Drawers	2		1 00	
Dyer	1		2 00	
Dyers	1		1 25	
Fuller	1		1 50	
Laborers	30		1 20	
Loom fixer	1		1 60	
Machinist	1		2 00	
Overseer	1		3 00	
Overseer	1		2 75	
Overseer	1		2 50	
Overseer	1		2 25	
Picker	1		1 33	
Second hand	1		2 00	

a Youth.

WOOLLEN GOODS (FLANNEL), MAINE.—ESTAB. No. 553.—Concluded.

Time, 11 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Second hand	1		\$1 75	
Spinners, mule	12		1 50	
Spoolers	5		1 00	
Teamster	1		1 25	
Warpers	2		2 00	
Weavers	35		1 15	
Wool sorters	6		1 50	

WOOLLEN GOODS (CLOTH), MARYLAND.—ESTAB. No. 554.

Time, 11 hours per day; 302 days the past year.

Baler	1		\$1 25	
Beamers	4		1 50	
Box boys	b2		40	
Burlers		4		\$0 90
Carpenter	1		2 50	
Carpenter	1		1 80	
Carpenters	2		1 75	
Carpenters	4		1 50	
Creal boys	a6		52	
Drawers-in		3		80
Drawers-in helpers		b4		37
Dyers	15		1 25	
Engineers	2		2 00	
Finishers	a3		80	
Finishers	a3		56	
Foreman	1		2 00	
Foremen	5		2 50	
Foremen	2		2 00	
Fuller	1		1 75	
Fullers	4		1 25	
Inspector	1		1 25	
Laborers	4		1 25	
Loom fixers	2		1 75	
Machinists	2		2 00	
Pickers	12		1 20	
Pickers	a4		80	
Pickers		9		66
Pickers	b31		45	
Scourers	4		1 25	
Shearer	1		1 50	
Speckers		8		67
Spinners, mule	4		1 35	
Spool carriers	2		1 25	
Spoolers		9		1 00
Sweepers	b2		40	
Tenters	6		1 25	
Teamsters	2		1 50	
Teamster	1		1 15	
Waste grinder	1		1 00	
Weavers	3	30	1 10	1 10
Weavers	1	30	80	90
Wool sorter	1		2 20	
Wool sorters	a2		80	

WOOLLEN GOODS (CASSIMERE), MASSACHUSETTS.—ESTAB. No. 555.

Time, 10 hours per day; — days the past year.

Carders	5	8	\$0 85	\$0 85
Dyers	4		1 00	
Finishers	7		1 15	
Fullers	3		1 00	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

WOOLLEN GOODS (CASSIMERE), MASSACHUSETTS.—
ESTAB. No. 555—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Giggers	10		\$1 00	
Overseers	6		2 60	
Pickers	3		1 00	
Repair and watch hands	6		1 80	
Second hands	8		1 66	
Speckers		20		\$0 80
Spinners, mule	14		1 10	
Spinners		2		65
Undesignated	25	18	1 25	70
Undesignated	a13		75	
Weavers	20	45	1 15	1 00
Weavers		a5		50

WOOLLEN GOODS (CASSIMERE), MASSACHUSETTS.—
ESTAB. No. 556.

Time, 10 hours per day; — days the past year.

Bobbin carriers	a2		\$0 70	
Botler man	1		1 37	
Drawers		8		\$1 25
Drawer-in		1		1 37
Dresser	1		1 50	
Filling carrier	1		1 25	
Fuller	1		1 50	
Gigger	1		1 50	
Loom fixers	4		1 75	
Machinist	1		2 00	
Overseers	9		3 50	
Overseer	1		3 00	
Overseer	1		2 50	
Overseer	1		2 00	
Presser	1		1 00	
Presser	1		1 25	
Second hand	5		1 00	
Second hands	1		1 25	
Shearer		8		65
Speckers	2		1 37	
Spinners, mule	a3	a8		67
Spoolers	2		1 00	
Tenters	14		1 67	
Undesignated	a8		87	
Undesignated	1		1 25	
Washer	1		1 50	
Watchman	27	29	1 25	1 25
Weavers	1		1 50	
Wool sorter				

WOOLLEN GOODS (CASSIMERE), MASSACHUSETTS.—
ESTAB. No. 557.

Time, 10 hours per day; — days the past year.

Barriers		2		\$1 25
Barriers		2		1 05
Carders	3		\$1 23	
Dressers	2	1	1 65	75
Dressers		8		60
Dyers	9		1 15	
Finishers	8	2	1 25	1 12
Finishers		8		75
Machinists	4		1 75	
Overseer	1		5 00	
Overseer	1		3 15	
Overseers	3		2 75	

WOOLLEN GOODS (CASSIMERE), MASSACHUSETTS.—
ESTAB. No. 557—Concluded.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Overseers	8		\$2 00	
Railway hands	a4		63	
Speckers		14		\$0 60
Spinners, mule	3		1 25	
Undesignated	4		2 00	
Undesignated	7		1 50	
Undesignated	a3		50	
Weavers	24	25	1 35	1 35
Winders	a3	18	50	75

WOOLLEN GOODS (CLOTH), MASSACHUSETTS.—
ESTAB. No. 558.

Time, 10 hours per day; 308 days the past year.

Carders	a57		\$0 78	
Cloth-room hands		77		\$0 87
Drawers-in		6		1 12
Dressers	12	3	1 33	90
Driers	11		1 00	
Dyers	37		1 08	
Finishers	21		1 01	
Firemen	3		1 58	
Fullers	14		1 01	
Giggers	29		94	
Laborers	7		1 03	
Laborers	17		96	
Laborers	a7		69	
Pickers	9		1 06	
Pressers	4		1 02	
Scourers	7		1 16	
Scrubbers		a7		65
Second hand	1		3 00	
Second hands	6		2 25	
Second hands	2		1 85	
Second hands	4		1 70	
Second hand	1		1 50	
Shearers	5		87	
Spinners, mule	41		1 26	
Spinners		8		98
Spoolers		a25		55
Teamsters	3		1 51	
Teasel setters	2		1 27	
Undesignated	17		1 85	
Undesignated	3		1 05	
Watchmen	9		1 15	
Weavers	14	158	1 35	1 10
Wool sorters	17		1 86	

WOOLLEN GOODS (WORSTED FABRIC), MASSACHU-
SETTS.—ESTAB. No. 559.

Time, 10 hours per day; 308 days the past year.

Carders	3		\$0 95	
Dyers	4		1 00	
Engineer	1		1 35	
Finishers	15		75	
Gate keeper	1		1 00	
Loom fixers	6		2 00	
Overseers	e		2 50	
Spinners, mule	4		1 25	
Watchman	1		1 35	
Weavers	40	40	1 45	\$1 45

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉES, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

WOOLLEN GOODS (FLANNEL). MASSACHUSETTS.—
ESTAB. No. 560.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	7		\$1 50	
Carpenter	1		2 75	
Drawers	a7		92	
Dressers	3		1 75	
Dyers	2		1 50	
Engineer	1		2 17	
Machinist	1		2 75	
Overseers	2		3 00	
Overseers	3		2 50	
Pickers	3		1 42	
Roving carrier	1		1 17	
Scourer	1		1 75	
Scourers and dyers	4		1 50	
Second hands	2		1 50	
Spinners, mule	10		1 65	
Spoolers	a5		1 75	
Twisters	3		1 42	
Weavers	36		1 10	
Wool sorters	4		1 75	

WOOLLEN GOODS (FLANNEL). MASSACHUSETTS.—
ESTAB. No. 561.

Time, 10 hours per day; — days the past year.

Drawers	a2		\$0 75	
Dresser	1		2 00	
Dyer	1		2 50	
Engineer	1		2 50	
Overseer	1		3 00	
Overseer	1		2 75	
Overseer	1		2 62	
Picker	1		1 50	
Roving carrier	1		1 00	
Scourer	1		1 67	
Scourers	2		1 50	
Second hands	2		1 50	
Spinners, mule	6		1 42	
Spoolers		a3		\$0 50
Teamster	1		1 83	
Watchman	1		1 66	
Weavers		15		1 30
Wool sorter	1		1 75	

WOOLLEN GOODS (FLANNEL). MASSACHUSETTS.—
ESTAB. No. 562.

Time, 10 hours per day; 300 days the past year.

Carders	a8		\$0 62	
Drawers-in		2		\$1 00
Dressers		3		1 50
Engineer	1		1 75	
Overseer	1		2 75	
Overseers	2		2 55	
Overseers	2		2 00	
Scourers	5		1 25	
Second hands	4		1 37	
Second hands	7		1 25	
Second hands	4		1 00	
Speckers		a8		65
Spinners, mule	8		1 50	
Spoolers		5		60
Twister	1		1 25	
Watchman	1		1 50	
Weavers		28		1 00
Wool sorter	1		1 50	

WOOLLEN GOODS (BLANKET, FLANNELS, YARN),
MISSOURI.—ESTAB. No. 563.

Time, 10 hours per day; 200 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	17		\$1 25	
Dyers	11		1 25	
Engineer	1		2 50	
Finishers	9	13	2 00	\$3 60
Laborers	3		1 25	
Machinist	1		2 50	
Overseer	1		3 75	
Overseer	1		3 50	
Overseers	2		3 00	
Overseer	1		2 50	
Packers	6		1 50	
Spinners, mule	18		1 25	
Twisters		4		1 00
Weavers	17	7	1 50	1 50
Wool sorters	9		1 50	

WOOLLEN GOODS (CASSIMERE). NEW HAMPSHIRE.—ESTAB. No. 564.

Time, 11 hours per day; 305 days the past year.

Bobbin tenders	5		\$1 25	
Burlers		30		\$0 80
Carders		19		80
Card strippers	7		1 25	
Carpenters	4		2 37	
Dressers	6		1 75	
Driers	2		1 15	
Dyers and scourers	16		1 25	
Engineer	1		3 00	
Fireman	1		1 77	
Fireman	1		1 75	
Fullers	8		1 25	
Laborers	12		1 37	
Laborers	26		1 25	
Loom fixers	6		1 90	
Machinists	8		2 00	
Menders		7		1 35
Overseers	5		3 50	
Overseers	5		3 00	
Overseer	1		2 50	
Overseer	1		2 25	
Overseers	4		2 00	
Overseers	2		2 75	
Overseers	3		2 00	
Packers	4		1 25	
Painters	2		1 25	
Pattern maker	1		1 50	
Pickers and driers	7		1 20	
Second hands	7		1 00	
Second hand	1		1 50	
Second hand	1		1 25	
Shears	5		1 50	
Shearer	1		1 15	
Spinners, mule	18		1 75	
Spoolers		14		55
Teamsters	2		1 50	
Warpers		4		1 00
Warpers		4		1 00
Watchmen	8		1 37	
Weavers	50	45	1 50	1 50
Wool sorters	18		1 37	
Wool sorters	2		1 00	

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 228.

WOOLLEN GOODS (CLOTH, BLANKETS), NEW JERSEY.—ESTAB. No. 565.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Carders	10	1	\$1 13	\$0 90
Carders	a6		45	
Dyers	8		1 00	
Finishers	24	24	75	68
Fullers and giggers	18		1 00	
Fullers and giggers	a4		75	
Laborers	18		1 00	
Loom fixers	12		1 88	
Overseers	18		2 50	
Pickers	18		1 00	
Repair hands	7		2 00	
Repair hands	7		1 50	
Spinners	18	6	1 00	1 00
Spinners	a4		55	
Spinners	a8		37	
Weavers	a12	a10	50	50
Weavers	50	30	1 00	1 00
Wool sorters	1	12	80	67

WOOLLEN GOODS (CLOTH), NEW YORK.—ESTAB. No. 566.

Time, 11 hours per day; 300 days the past year.

Back boys	a10		\$0 66	
Back boys	a14		42	
Blacksmith	1		2 00	
Bobbin carriers	a4		67	
Brush boys	a3		67	
Burlers		66		\$0 70
Card boys	a7		70	
Card stripper	1		1 54	
Card strippers	6		1 21	
Carders		a17		68
Carpenter	1		2 25	
Carpenter	1		1 75	
Chain builder	1		1 32	
Chain builders	3		94	
Designers	8		1 65	
Designers	a3		60	
Drawer	1		3 00	
Drawers-in		6		1 40
Dressers	2		1 40	
Drier	1		1 25	
Driers	18		1 10	
Drier	1		75	
Dyer	1		1 50	
Dyers	6		1 25	
Dyers	21		1 15	
Engineer	1		2 00	
Finishers	2		1 25	
Fireman	1		1 38	
Fireman	1		1 10	
Foreman	1		4 00	
Foreman	1		8 00	
Foremen	2		2 30	
Foreman	1		1 65	
Fuller	1		1 50	
Gigger	1		1 50	
Laborers	2		1 21	
Machinist	1		8 25	
Machinist	1		2 25	
Machinist	1		2 00	
Overseer	1		3 00	
Overseer	1		2 20	
Painter	1		1 54	
Picker	1		1 60	

a Youth.

WOOLLEN GOODS (CLOTH), NEW YORK.—ESTAB. No. 566—Concluded.

Time, 11 hours per day; 300 hours the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Picker	1		\$1 21	
Pickers	6		1 05	
Pressers	3		1 35	
Rovers	2		1 38	
Scourers	22		1 15	
Scrubber	1		1 10	
Second hands	3		2 00	
Section hands	9		1 88	
Section hand	1		1 65	
Sewers		30		\$1 10
Sewers		7		1 00
Sewers		5		83
Shearers	6		1 15	
Spinners, mule	3		1 10	
Spinners, mule	a11		75	
Spoolers	a10	a17	50	50
Teamster	1		1 38	
Twisters		a12		75
Twisters		a12		67
Undesignated		1		2 00
Undesignated	a2		55	
Warpers	7		1 75	
Warper	1		1 32	
Warpers' helpers	a2		67	
Watchman	1		1 25	
Watchmen	2		1 50	
Weavers	84	52	1 02	1 02
Wool sorters	15		1 40	
Yarn hand	1		1 43	

WOOLLEN GOODS (CLOTH), NEW YORK.—ESTAB. No. 567.

Time, 11 hours per day; 266 days the past year.

Back boys	a8	a19	\$0 72	\$0 62
Burlers				
Card boys	b18		60	
Carders	16		1 08	
Carpenters	4		1 55	
Designer	1		6 00	
Designer	1		2 50	
Drawers-in	2		1 50	
Dressers	8		1 62	
Dyers	12		1 12	
Engineer	1		1 75	
Filling carriers	3		1 00	
Firemen	2		1 32	
Foreman	2		5 00	
Foremen	2		3 41	
Foremen, assistant	3		96	
Fullers	9		1 05	
Gas maker	1		1 25	
Gigger	1		1 75	
Giggers	13		1 08	
Gigger	a1		75	
Laborers	10		1 00	
Loom fixers	6		2 16	
Machinists	3		1 75	
Measurers	2		1 19	
Overseer	1		4 50	
Overseer	1		4 00	
Percher	1		1 50	
Pressers	3		1 25	
Second hands	5		2 50	
Sewers-in	4		1 00	
Shearers	5		1 15	
Spare hands	3		1 50	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

WOOLLEN GOODS (CLOTH), NEW YORK.—ESTAB.
No. 567.—Concluded.

Time, 11 hours per day; 266 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Speckers	a21		\$0 87	
Spinners, mule	7		1 75	
Spinners, mule	17		1 40	
Spinners		14		\$1 00
Spoolers		a10		60
Spoolers		b9		50
Teamsters	2		1 37	
Twisters		b17		55
Undesignated	a1	a1	62	03
Undesignated	b2		50	
Watchmen	2		1 44	
Weavers	3		1 37	
Weavers	39	53	1 20	1 20
Weavers	a2		81	
Wool sorters	11		1 84	

WOOLLEN GOODS (WORSTED YARN), NEW YORK.—
ESTAB. No. 568.

Time, 10 hours per day; 306 days the past year.

Carders	a18		\$0 83	
Comb fixer	1		2 08	
Doffers	b12		37	
Drawers		a14		\$0 58
Engineer	1		3 67	
Fireman	1		1 33	
Foreman	1		3 00	
Foreman	2		2 75	
Foreman	1		2 50	
Foreman	1		2 25	
Foreman	1		1 67	
Foreman	1		1 50	
Machinist	1		2 50	
Reelers		15		67
Spinners		a41		50
Twisters		a26		58
Undesignated	1		83	
Wool sorters	18		1 75	

WOOLLEN GOODS (CLOTH), NORTH CAROLINA.—
ESTAB. No. 569.

Time, 11½ hours per day; 300 days the past year.

Back boys	b3		\$0 40	
Beamers	2		75	
Burler		1		\$0 50
Carders	b2		50	
Carders	b2		38	
Dyers	4		75	
Engineer	1		1 83	
Finisher	1		85	
Finishers	4	3	75	50
Fireman	1		85	
Loom fixers	3		85	
Loom fixer	1		75	
Overseer	1		2 25	
Overseers	4		1 75	
Pickers	2		75	
Spinners, mule	3		1 25	
Undesignated	b4		45	
Weavers		17		75
Wool sorters	2		1 00	

a Youth.

WOOLLEN GOODS (CLOTH), PENNSYLVANIA.—
ESTAB. No. 570.

Time, 10 hours per day; 304 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Band boy	1		\$1 00	
Bobbin carriers	a6		75	
Bobbin winders		55		\$1 17
Burlers and speckers	105		1 17	
Carders	2		2 50	
Carders' assistants	4		1 67	
Card feeders	5		1 05	
Card grinder	1		2 50	
Card strippers	10		1 60	
Carpenter	1		2 25	
Cloth-room hands	9		2 00	
Condensers and winders	5		1 03	
Creel winders	10		1 07	
Drawers and twist-ers' helpers	12		2 33	
Drawers' and twist-ers' helpers	a21		67	
Dressers	a10		67	
Dye-house hands	30		1 67	
Electrician	1		2 00	
Engineer	1		2 50	
Filling carriers	6		1 75	
Fireman	1		1 67	
Fullers and washers	28		1 75	
Giggers	20		1 50	
Harness repairers	8		1 75	
Inspectors	10		2 00	
Inspector	1		1 00	
Laborers	26		1 50	
Laborers	7		1 33	
Laborers	5		1 10	
Loom fixers	19		2 67	
Machinists	2		2 33	
Mechanics, engin-eers, and firemen	21		2 50	
Menders	75		1 25	
Oiler	1		1 50	
Overseers	2		5 00	
Overseers	2		3 33	
Overseers	8		2 30	
Overseers	3		3 00	
Overseers	2		3 00	
Overseer	1		1 50	
Packers	4		1 67	
Packers	8		63	
Pickers	a51		67	
Reelers	13		1 00	
Scourer	1		2 33	
Shearers	10		1 50	
Spinners, mule	10		1 50	
Spoolers	28	7	1 25	83
Spool carriers	2		1 50	
Spool carriers	1		1 25	
Spool stripper	1		83	
Stock carriers	3		1 44	
Twisters	25		1 00	
Warehouse man	1		3 00	
Warehouse-man's as-sistant	1		2 00	
Warpers	16		2 33	
Warpers' helpers	a14		83	
Waste hands	4		3 00	
Watchmen	3		2 33	
Weavers	350		1 92	
Wool sorters		13		75
Yarn hand	1		83	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

WOOLLEN GOODS (CLOTH), PENNSYLVANIA.—Es-
TAB. No. 571.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burlers		25		\$0 83
Carders	8		\$2 69	
Card feeders	a40		83	
Dyers	20		1 33	
Fullers and giggers	20		1 37	
Fullers' and giggers' helpers	30		1 00	
Laborers	15		1 17	
Piecers	25		90	
Piecers	a62		62	
Pickers	50		1 00	
Spinnars, mule	25		1 33	
Weavers	150	150	1 71	1 33
Wool sorters	25		1 50	

WOOLLEN GOODS (CLOTH), PENNSYLVANIA.—Es-
TAB. No. 572.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Burlers		104		\$1 00
Carders and spinners	28		\$1 00	
Carpenters	2		2 50	
Dressers	8		2 00	
Dyers	29		1 25	
Engineers	1		2 50	
Finishers	81		1 50	
Fireman	1		1 75	
Foreman	1		5 00	
Laborers	5		1 75	
Machinists	2		2 50	
Spoolers and winders		10		95
Teamster	1		2 00	
Warehouse man	1		2 00	
Watchmen	2		1 66	
Weavers	224		1 87	

WOOLLEN GOODS (YARN, BLANKET), PENNSYLVANIA.—ESTAB. No. 573.

Time, 10 hours per day; 230 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card tenders		2		\$0 73
Engineer	1		\$2 25	
Foreman	1		4 00	
Laborers	3		1 25	
Overseer	1		3 00	
Overseer	1		2 00	
Piecers		6		60
Spoolers		20		70
Twisters		2		60
Weavers	12		1 33	
Wool sorters	2		1 66	

WOOLLEN GOODS (CLOTH), VERMONT.—ESTAB.
No. 574.

Time, 11 hours per day; 270 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Back boys	b9		\$0 45	
Blacksmiths	2		1 69	
Bobbin carrier	a1		50	
Box maker	1		1 81	
Burlers		a173		\$0 59
Carders	14	a31	1 00	61
Card grinders	5		1 00	

a Youth.

WOOLLEN GOODS (CLOTH), VERMONT.—ESTAB.
No. 574—Concluded.

Time, 11 hours per day; 270 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Card strippers	4		\$1 00	
Carpenters	8		1 92	
Doffers	a2		60	
Doubler	1		1 00	
Doublers		a7		\$0 00
Drawers		5		1 13
Drawers		5		80
Dressers	4		1 23	
Driers	4		1 02	
Dyers	24		1 02	
Dyer boys	b5		53	
Firemen	2		1 49	
Filling carriers	8		1 10	
Flockers	a2		70	
Fullers	16		1 00	
Gas maker	1		1 15	
Giggers	22		1 10	
Inspector	1		2 75	
Inspector	1		2 02	
Inspectors' assistants	2		1 25	
Inspectors	16		1 00	
Lappers	3		1 00	
Laborer	1		1 10	
Laborer	a1		50	
Loom fixers	8		1 88	
Machinists	6		1 78	
Marker		1		1 41
Mason	1		2 25	
Master mechanic	1		5 50	
Menders	a11		77	
Overseers	5		5 00	
Overseers	10		2 50	
Overseers	8		1 25	
Packers	3		1 50	
Painter	1		1 75	
Picker	1		1 25	
Pickers	12		1 00	
Picker	a1		55	
Piper	1		2 00	
Presser	1		1 50	
Pressers	4		1 02	
Pressers	a15		79	
Rovers	2		90	
Reelers		3		82
Scourers	8		1 06	
Second hands	6		2 00	
Second hands	7		1 40	
Second hands	4		1 00	
Slubbers		3		80
Spare hands	2		1 00	
Speeders		6		90
Spinnars, mule	44		1 30	
Spoolers		a12		47
Steamers	17		1 00	
Stock keepers	2		1 25	
Sweepers	a3		60	
Teamsters	4		1 22	
Teasel setter	1		1 25	
Undesignated	20		94	
Undesignated		b5		25
Waste sorters	b15		50	
Watchmen	2		1 40	
Weavers	43	100	1 17	1 17
Weavers' helpers	b1		85	
Winders		b2		43
Wool sorter	1		4 00	
Wool sorters	14		1 67	
Wool sorter	1		1 00	
Yard hand	1		1 25	
Yard hands	11		1 10	

b Children.

OCCUPATIONS, WITH NUMBER AND WAGES OF EMPLOYÉS, BY INDUSTRIES—Cont'd.

NOTE.—This table is not a complete exhibit for industries or states, but covers only establishments investigated by the Bureau. See page 91, also summaries, pages 143 to 226.

MISCELLANEOUS (BUTTONS), GREAT BRITAIN.—ESTAB. No. 575.

Time, 10 hours per day; — days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Corders		3		\$0 55
Drillers		3		55
Foreman	1		\$2 80	
Tool sharpener	1		2 20	
Turners	20		1 40	
Sawyers	6		1 60	
Scourer	1		1 20	
Stainer	1		2 40	

MISCELLANEOUS (STARCH), MAINE.—ESTAB. No. 576.

Time, 12 hours per day; — days the past year.

Driers	20		\$2 25	
Foremen	7		3 50	
Laborers	80		1 50	

MISCELLANEOUS (BUTTONS), MASSACHUSETTS.—ESTAB. No. 577.

Time, 10 hours per day; 300 days the past year.

Button cutters	15		\$1 50	
Carpenter	1		2 50	
Engineer	1		3 00	
Foremen	6		3 00	
Machine tenders		250		\$0 80
Machinists	12		2 50	
Teamster	1		2 00	
Watchman	1		2 40	

MISCELLANEOUS (MATCHES), NEW HAMPSHIRE.—ESTAB. No. 578.

Time, 10 hours per day; — days the past year.

Boiler men	2		\$1 50	
Dippers	2		1 75	
Laborer	1		1 50	
Laborer	1		1 25	
Laborers	4		90	
Packers		a10		\$0 90
Packers		a5		75
Undesignated	a4		75	

MISCELLANEOUS (CHINA DECORATIONS), NEW JERSEY.—ESTAB. No. 579.

Time, 10 hours per day; 300 days the past year.

Decorator	1		\$5 00	
Decorators	4		3 33	
Decorator	1		3 00	
Decorators	2		2 50	
Decorator	1		2 33	
Decorator		1		\$2 00
Decorators	3		2 00	
Decorator		1		1 66
Decorators	2		1 66	
Decorators		2		1 50

a Youth.

MISCELLANEOUS (CHINA DECORATIONS), NEW JERSEY.—ESTAB. No. 579—Concluded.

Time, 10 hours per day; 300 days the past year.

Occupations.	Number.		Daily wages.	
	Male.	Fem.	Male.	Fem.
Decorator	1		\$1 50	
Decorators	a3		1 33	
Decorator		1		\$1 16
Decorators		a3		83
Decorator	a1		83	
Decorators	a2	a3	66	66
Decorators	a2	a8	50	50
Decorators	b2	b4	33	33

MISCELLANEOUS (QUEENSWARE), NEW JERSEY.—ESTAB. No. 580.

Time, 9½ hours per day; 300 days the past year.

Decorators		51		\$0 78
Engineer	1		\$2 83	
Engineer	1		2 17	
Jiggers	19		3 66	
Jiggers' helpers	57		1 05	
Kiln men	22		2 00	
Laborers	18		1 25	
Mould makers	2		3 05	
Mould-makers, help-ers	2		1 81	
Packers	4		2 16	
Pressers	25		2 27	
Pressers' helpers	a25		1 60	
Sagger maker	2		5 00	
Sagger-makers' help-ers	a1		1 83	
Slip-house men	7		1 58	

MISCELLANEOUS (TRUNKS, SATCHELS), NEW JERSEY.—ESTAB. No. 581.

Time, 10 hours per day; 300 days the past year.

Box makers	40		\$2 00	
Engineer	1		2 50	
Foremen	6		2 66	
Laborers	20		1 53	
Trunk makers	40		2 33	
Trunk-makers' help-ers	a40		1 17	
Satchel makers	20		2 00	
Satchel-makers' help-ers	a8		75	

MISCELLANEOUS (TRUNKS, SATCHELS), NEW JERSEY.—ESTAB. No. 582.

Time, 9½ hours per day; 292 days the past year.

Box makers	45		\$2 33	
Engineer	1		2 16	
Fireman	1		1 83	
Foreman	1		4 16	
Satchel makers	70		2 16	
Satchel-makers' help-ers	a15	50	1 00	\$0 83
Trunk makers	120		1 75	
Trunk-makers' help-ers	a45		1 00	

b Children.

APPENDIX B.

EARNINGS AND EXPENSES OF WAGE RECEIVERS IN EUROPE.

NOTE.—With reference to these family budgets, etc., see page 242.

ITALY.

REMARKS.—The condition of the laboring class in Italy, especially in the southern portion of the state, is one of extreme poverty and hardship. The habitation of the laborer and the mechanic is generally a room in a damp, ill-smelling building, on a street ten or fifteen feet wide, and rarely visited by the sun by reason of the height of the buildings on either side. Economy is practised such as prevails in few other countries. The coffee grounds from the wealthy man's kitchen are dried and resold to the poor. In a similar way oil is twice and sometimes three times used, the drippings, after successive fryings, being gathered from the pan and sold to the poor. There are markets of second-hand articles of food and clothing. Old shoes, hats, clothes, candle-ends, dried coffee grounds, second-hand oil, etc., are spread out upon the broad stones of the plaza, or square of a town, and it is in such places, to a considerable extent, that the workingman buys his supplies. In Lombardy and Tuscany a slightly better condition is becoming apparent. The general character of the workman's surroundings is superior to that of the workman in other sections of the state. Some of the manufacturers of Milan have recently taken a step toward the improvement of the habitations of their operatives.

Owing to the high octroi, or gate tax, prevailing in all cities and towns, the cost of living is from 20 to 25 per cent. greater in towns than in villages and in the country without the walls of towns. On this account a considerable portion of hand-machine manufacturing (such as weaving, spinning, etc.), is carried on in villages and rural districts. To bring a quart of wine into Milan costs the laborer 2 cents; a chicken or goose, 3 cents; bread is taxed about 20 per cent., and milk and some other articles of food at a similar rate. The tax at the gates of other cities will average the same as that at Milan. The making of iron bedsteads is an occupation constantly encountered. These bedsteads are in almost universal use among the lower classes, and also to a great extent among the middle and upper classes. The beds are manufactured, as a rule, in the dwelling of the workman—usually a room from 15 to 20 feet square, level with the street, with no windows, the insufficient light coming in through the door opening into a narrow street. In favorable weather the workman sets his tools and bench upon the street in front of his room, and works there.

NO. 1. IRON-BEDSTEAD MAKER—NAPLES.

Condition.—Family numbers six: Parents, son aged 18, son aged 16, children aged 12 and 7.

Diet.—Breakfast: Coffee or wine, black bread. Dinner: Macaroni, beef stew, or tripe, potatoes, funnochie (a), wine, bread. Supper: Coffee or wine, and bread; sometimes macaroni.

a Funnochio is a kind of rank or coarse celery, very much in favor with Southern Italians.

Earnings of father	\$168 00
Earnings of oldest son	130 00
Earnings of rest of family	178 75
Total	476 75

Cost of Living.

Coffee, sugar, and milk	\$32 85	Rent	\$18 00
Macaroni	80 30	Incidentals	18 75
Bread and flour	73 00		
Potatoes, funnochio, etc	73 00	Expenditures	425 60
Wine	65 70	Earnings	476 75
Clothing, towels, sheets, etc.	52 00		
Shoes	12 00	Surplus	51 15

No. 2. IRON-BEDSTEAD MAKER—NAPLES.

Condition.—Single man, about 25; is skilled workman. Sleeps in a lodging house with from fifteen to twenty others in the room; surroundings damp; no window; has never been to school, but can read a little; gets his meals at cheap macaroni eating houses.

Diet.—Breakfast: Bread and oil, or funnochio, eaten on the way to work. Dinner: Macaroni, tripe, or beef hash, red wine, and bread. Supper: Wine or coffee, and bread.

Average cost of breakfast	\$0 06
Average cost of dinner	14
Average cost of supper	6

Cost of food per day	26
----------------------------	----

Earnings	\$150 00
----------------	----------

Cost of Living.

Lodging	\$14 60	Clothing	\$16 00
Bread	21 90	Incidentals	15 00
Oil	10 95		
Macaroni	29 20	Expenditures	148 80
Wine	24 20	Earnings	150 00
Coffee	10 95		
Shoes	6 00	Surplus	1 20

No. 3. IRON-BEDSTEAD MAKER—NAPLES.

Condition.—Family of five: Parents, brother of wife, and two children, aged 4 and 5. Occupy a room in dingy house on a dark, narrow street. A cheap curtain divides it into one large and one small compartment; brother occupies small compartment, parents and children sleep in large part. During the day the beds are rolled up and stacked in one corner, and work carried on in sleeping room. The father is a good workman and earns on an average 70 cents per working day. The mother cooks, cares for the children, and does a little washing. Family are saving to emigrate to the United States.

Diet.—Breakfast: Coffee, milk, bread. Dinner: Wine, macaroni or rice, tomatoes, bread, occasionally dried figs, chestnuts, onions, tripe, fish, etc. Supper: Coffee, milk, bread.

Earnings of father	\$203 00
Earnings of wife's brother	145 00
Earnings of mother	29 00

Total	377 00
--------------------	---------------

<i>Cost of Living.</i>			
Rent.....	\$12 00	Clothing, including shoes.....	\$51 60
Bread.....	80 30	Incidentals.....	4 75
Coffee, milk, and sugar.....	73 00		
Macaroni.....	36 50	Expenditures.....	360 65
Vegetables, pork, cheese, etc.....	66 00	Earnings.....	377 00
Wine.....	36 50		
		Surplus.....	16 35

No. 4. WEAVER—SIENA.

Condition.—Family of four: Parents, wife's sister, and child, aged 6. Work is carried on in a large basement, poorly lighted. Twelve hand looms, earth floor. Habitation of family consists of one room in tenement house, up one flight of crooked stairs, paved with brick, with large open chimney in which cooking is done. Principal fuel is brushwood gathered by child, and at odd hours and on Sundays by the mother. The family all sleep in one room. The husband and wife and sister work at looms, making each from ten to twelve yards per day, and earning each from 25 to 35 cents per day. Child gathers brushwood, also begs.

Earnings of father.....	\$105 00
Earnings of mother.....	72 50
Earnings of sister.....	72 50
Total.....	250 00

<i>Cost of Living.</i>			
Rent.....	\$12 00	Shoes.....	\$6 50
Bread.....	58 40	Incidentals.....	10 20
Macaroni.....	29 20		
Coffee and milk.....	29 20	Expenditures.....	246 70
Vegetables, cheese, wine, etc.....	69 20	Earnings.....	250 00
Clothing.....	32 00		
		Surplus.....	3 30

No. 5. WEAVER—RACIGLIONE.

Condition.—Family of five: Parents, two children, 5 and 6 years of age, and mother of the father. Parents work at hand looms, the grandmother spins (at home), attends to the children, and to two goats, the milk of the goats being sold at 4 cents per quart. Occupy a room with earth floor, on a level with the ground; room divided into two compartments. Weaving room on same street, up a steep hill; only six looms; level of room three feet below level of the street; no windows, lighted by the door.

Earnings of father.....	\$126 00
Earnings of mother.....	97 50
Earnings of grandmother (spinning).....	48 75
Earnings of grandmother (sale of milk).....	43 80
Total.....	316 05

<i>Cost of Living.</i>			
Rent.....	\$14 40	Clothing.....	\$19 65
Bread.....	53 00	Iron bedstead, chairs, etc.....	8 70
Macaroni.....	69 40		
Groceries, funnochio, olives, eggs.....	72 50	Expenditures.....	313 40
Wine.....	51 00	Earnings.....	316 05
Coffee.....	17 25		
Wooden clogs and leather shoes.....	7 50	Surplus.....	2 65

a Item for coffee always includes the milk and sugar used in coffee. The Italian laborer uses a good deal of milk in his coffee. The sugar used is mostly beet sugar imported from France or Germany.

No. 6. WEAVER—ACQUAPENDENTE, CENTRAL ITALY.

Condition.—Young woman aged 18, engaged to marry a stone mason, and both stinting themselves to save money to emigrate to South America. Lives with parents, who are field hands; room on narrow street, two windows, brick floor; girl works ten to twelve hours per day at loom in a cellar, earth floor, poor light; earns from 20 to 30 cents per day; makes from nine to eleven yards of cloth per day.

Diet.—Breakfast: Bread and wine, or coffee. Dinner: Artichokes, onions, or macaroni, and bread, and occasionally salt pork or eggs. Supper: Bread and coffee, or wine.

Average cost of breakfast	\$0 04
Average cost of dinner	7
Average cost of supper	4
Cost of food per day	15
Earnings	\$81 25

Cost of Living.

Rent	\$00 00	Clothing, including shoes	\$12 40
Bread	18 25		
Coffee	7 48	Expenditures	70 63
Wine	6 95	Earnings	81 25
Macaroni	10 95		
Artichokes, pork, eggs, funnochio, eaten only on extra occasions, feast days, etc.	14 60	Surplus	10 62

REMARKS.—The basement-like rooms in which weaving is done are not provided with stoves or fire places. Each operator has a small bucket or jug of hot ashes or coals. This the women put under their dresses; the men place them at their feet. There is also, in quite cold weather, a large pan of coals set in the middle of the room. The weavers quit their work occasionally to sit for a few minutes around this pan and warm their hands and feet.

The fuel for this primitive heating arrangement consists to some extent of brushwood, clippings from old grapevines, etc. Coal is imported from England. Price per ton at West Mediterranean ports, \$5 to \$6. Price in interior, but on railroads, \$7 to \$10. Price in towns distant from sea and railroads, \$10 to \$15 per ton.

No. 7. OSTERIA KEEPER—MONTE ROSA.

Condition.—Family of eight: Parents; son aged 22; three daughters, aged 14, 15, and 21; boy aged 10, and girl aged 9. Father keeps an osteria, or place where wine is sold, and lodging house for peasants. Lodgers pay 4 cents per night per bed. Several beds to the room. Wife spins wool, milks goats, washes bed clothing, linen, etc., cooks, and cares for silk worms. Daughter aged 21, weaves; daughter aged 15, weaves; daughter aged 14, assists her mother in housework, care of the silk worms, etc. The boy and girl pick brushwood from the roads and gather mulberry leaves for the silk worms. Son, aged 22, works at odd jobs, in fields, etc. Occupy house of six rooms, not including entrance room, used as wine and eating room, on ground floor opening on the street. To the back of this entrance room is an open court through which the rear half of the house is reached. Lower part of rear half of house used as stable for goats and asses. Five rooms on second floor—two used by family, one for care of silk worms, and two rooms, several beds each, for transient lodgers. House of stone, floors of brick, windows looking on open court. Surroundings better than in large cities, but street is narrow and crooked, and location, on the whole, not pleasant.

a Lives with parents, paying no rent, hence not included in this, an individual estimate.

EARNINGS AND EXPENSES OF WAGE RECEIVERS IN EUROPE. 415

Diet.—Breakfast: Bread, coffee or wine, and occasionally pork or cheese. Dinner: Beef stew, or macaroni, beans, bread, wine, sometimes cheese, eggs, or beef. Supper: Bread, coffee or wine; sometimes cheese, onions or funnochio.

Earnings of father	\$311 00
Earnings of wife, spinning	41 00
Earnings of daughter, aged 21	91 80
Earnings of daughter, aged 15	79 30
Earnings of son, laborer (not steadily at work)	71 00
Earnings of boy, aged 10	25 00
Sale of silk cocoons	99 00
Sale of goats' milk	73 00
Total	791 10

Cost of Living.

Rent	\$84 00	Incidentals	\$58 50
Clothing, including bedding, etc.	93 50		
Wine	116 80	Expenditures	767 80
Coffee	58 40	Earnings	791 10
Bread and flour	146 00		
Groceries, etc.	187 60	Surplus	23 30
Shoes (leather)	23 00		

No. 8. SALESMAN—NAPLES.

Condition.—Family of four: Parents and two small children. Father is salesman in glove store; mother works in glove manufactory. Occupy two rooms, one large, the other quite small. Large room used for sleeping and living in; small room for cooking. Sleeping room has two windows, brick floor, but partly covered with mats; no conveniences of gas or water. Water closet in house very offensive; otherwise habitation tolerable. Factory room, where mother sews gloves on machines, small and crowded; bad air and poor light.

Diet.—Breakfast: Goats' milk, bread, and figs; occasionally onions or cheese. Dinner: Macaroni, onions, bread, and wine, and on occasions eggs or fish or salt meat. Supper: Bread, coffee or milk; sometimes chestnuts, figs, or similar food.

Earnings of father	\$180 40
Earnings of mother	90 00
Total	270 40

Cost of Living.

Rent	\$24 00	Incidentals	\$19 20
Bread	43 80		
Macaroni	43 80	Expenditures	269 90
Coffee	20 00	Earnings	270 40
Wine	29 20		
Groceries	37 90	Surplus	50
Clothes, including shoes	52 00		

No. 9. STONE MASON—POZZUOLI, SOUTHERN ITALY.

Condition.—Family of six: Parents, boy aged 15, girl aged 14, boy aged 9, and baby. Son aged 15 assists his father; boy of 9 carries stones; mother cares for baby, sews, cooks,

etc. Occupy room on level with street, keep goat and kid and dog in room; pan of coals for heating and cooking; surroundings dingy and unpleasant. Father works on a building short distance from his habitation. The stone used is a kind of porous, pumice stone, quarried not far from the building. Sand obtained from wells in vicinity.

Diet.—Breakfast: Bread and oil or coffee. Dinner: Boiled chestnuts, or macaroni, onions, funnochio, bread and wine; sometimes salt pork. Supper: Bread and coffee, or cheese.

Earnings of father	\$183 60
Earnings of sons	132 20
Total	315 80

Cost of Living.

Rent	\$15 00	Incidentals	\$20 00
Bread	65 70		
Macaroni	43 80	Expenditures	330 20
Coffee	21 90	Earnings	315 80
Wine	43 80		
Groceries	61 00	Deficit	14 40
Clothing	59 00		

REMARKS.—Building trades in Italy are conducted on a very solid basis, but not with much push or rapidity. There is no steam elevator to shoot up half a ton of bricks or stones at one time to the mason, and not even a hod carrier. The blocks of stone are carried by boys and girls, either one block at a time, on their backs, or, when the stones are small (about one and one-half times the size of an ordinary brick), in baskets. Girls carry sand and mortar in buckets. When the stone and mortar carriers are delayed the mason waits, idling. As a result of this method of procedure, the laying of 500 to 600 stones (size about 6 inches by 6 inches by 5 inches) is considered a good day's work for an average mason.

The pay of a mason ranges from 40 to 70 cents per day of ten to twelve hours. He is able to exist upon this sum, and nothing more. A family of father and mother and half a dozen children will inhabit one room, with an earth or brick floor, damp, and even though having windows looking on a street, yet poorly lighted on account of the narrowness of the street and the great height of the surrounding buildings. During the day the beds, that at night cover perhaps every inch of the floor, are rolled up and piled in a corner. The workman's breakfast is often but a pone of black bread, eaten on the way to work; a plate of macaroni, onions, boiled chestnuts, wine, and bread is considered a good dinner. The bricklayer's food may be computed to cost on an average 15 to 25 cents per day; his room costs \$12 to \$15 per year; a suit of clothes \$2 to \$6 (or second-hand, \$1.50); shoes from 20 cents to \$1.50.

Boys who carry mortar, sand, or blocks of stones receive from 10 to 20 cents per day of ten to twelve hours.

No. 10. SKILLED SHOEMAKER—FLORENCE.

Condition.—Family of four: Parents and two babies. Works in cellar, pursuing his business on Sundays as well as week days.

Diet.—Breakfast: Bread and onions, or coffee. Dinner: Macaroni, sometimes pork—black bread, salad, funnochio, etc. Supper: Bread and coffee—sometimes cheese.

Earnings	\$195 00
----------------	----------

Cost of Living.

Rent	\$12 00	Incidentals	\$24 00
Bread	43 80		
Macaroni	43 80	Expenditures	193 40
Groceries	33 80	Earnings	195 00
Clothing (including shoes)	36 00	Surplus	1 60

NO. 11. SHOEMAKER—FLORENCE.

Condition.—Young man about 21; ordinary workman; without family. Lodges in crowded lodging house, a dozen or more in one room; workshop is on narrow street, poorly lighted, and bad air.

Diet.—Breakfast: Coffee and bread. Dinner: Macaroni, bread, wine; sometimes funnochio, onions, or other vegetable. Supper: Coffee and bread; or black bread and one-third to one-half pound dried figs.

Average cost of breakfast	\$0 03
Average cost of dinner	9
Average cost of supper	4
	<hr/>
Average cost of food per day	16
Earnings	\$110 00

Cost of Living.

Lodging	\$14 60	Incidentals	\$15 00
Bread	18 25		
Macaroni	18 25	Expenditures	99 40
Wine	7 30	Earnings	110 00
Onions, figs, chestnuts, etc. ..	6 00		
Clothing, etc	16 00	Surplus	10 60
Shoes	4 00		

NO. 12. SHEPHERD IN THE ROMAN CAMPAGNA.

Condition.—Man about 50 years of age; lives in haystack-like hovel; leads a solitary life; cannot read; possesses but a slight degree of intelligence.

Diet.—Breakfast: Black bread, oil, water. Dinner: Black bread, oil, water. Supper: Black bread, oil, water. This meagre and monotonous diet is varied at infrequent intervals by a very small piece of bacon, salt pork, or macaroni, an onion, or a little funnochio; on great fête days by a little wine.

Earnings, at 7 cents a day	\$25 55
----------------------------------	---------

Cost of Living.

Bread	\$14 60	Clothing and incidentals	\$3 66
Oil	5 47		
Other food supplies	1 82	Expenditures	25 55
		Earnings	25 55

NO. 13. SHEPHERD IN THE ROMAN CAMPAGNA.

Condition.—Family of four: Parents, boy 9 and girl 8 years of age. Occupy a squalid hovel in open field. Parents herd sheep; boy and girl attend to drove of hogs. All knit socks or similar articles. Shoes consist of pieces of raw cowhide bound, sandal-like, to the feet by strings.

Earnings of family	\$87 60
--------------------------	---------

<i>Cost of Living.</i>			
Bread	\$58 40	Clothing and incidentals	\$7 30
Other food (mostly oil)	21 90		
		Expenditures	87 60
		Earnings	87 60

No. 14. SHEPHERD IN THE ROMAN CAMPAGNA.

Condition.—Single man; earns 2 cents per day; bread and oil found for him. Has herded sheep ten years. Very low order of intelligence; cannot read, and has never been to Rome, although not above twenty miles distant.

Earnings per year	\$7 30
Expenditures (clothing, etc.)	7 30

REMARKS.—The shepherds of Italy, especially those in the campagna surrounding Rome, are among the lowest and most miserable of mankind. Their condition is hardly better than that of the North American Indian, sleeping in a tepee by night and roaming the plains by day. The Roman shepherd's habitation is constructed in a fashion similar to the Indian tepee. A dozen or so poles, each 20 to 25 feet long, are bunched together, forming a conical frame work on which a thatching of straw is put to protect from heat and cold and wind and rain. A bundle of straw is the shepherd's bed; his furniture consists usually of a three-legged stool; and the fire to warm him, made of scanty brushwood, burns in a hole scooped out for the purpose in the center of the earth floor of the apartment. While herding sheep the shepherd knits stockings; his clothing often consists of goat or sheepskins, and one suit lasts for years. The wages of a shepherd, he finding his own food, are from 7 to 8 cents per day. When food is found for him, the pay is from 2 to 3 cents per day. No rent is paid for the thatched hovel, and usually when a new sheep or goatskin is needed for a jacket or pair of trousers, it is furnished by the employer gratis.

No. 15. STONECUTTER.

Condition.—Family of seven: Parents, son aged 15, boy aged 11, girl aged 14, two children. Occupy two brick-floored rooms; fair amount of comfort and tidiness; two windows and good light in front room. Father is a skilled stonecutter; son helps; boy learning. The mother and daughter dress neatly—do sewing, cooking, and general household work.

Diet.—Breakfast: Bread, coffee, milk. Dinner: Bread, soup, macaroni, vegetables, sometimes wine. Supper: Bread, coffee, milk, occasionally figs or chestnuts or bit of pork.

Earnings of father	\$250 00
Earnings of son	83 30
Earnings of daughter	40 00
Earnings of boy	52 00
Total	425 30

<i>Cost of Living.</i>			
Rent	\$24 00	Fuel and incidentals	\$19 00
Bread	106 85		
Coffee	18 15	Expenditures	422 70
Milk	33 85	Earnings	425 30
Macaroni	36 50		
Vegetables, etc.	113 15	Surplus	2 60
Clothing, etc.	71 20		

No. 16. STONECUTTER.

Condition.—Family of three: Parents and child. Father is an ordinary stonecutter. Mother is cook in private family; family saving to emigrate to South America. Occupy single room in lodging house; damp, badly lighted, generally uninviting.

Diet.—Breakfast: Bread and onions, coffee and milk, occasionally salami or a little cheese. Dinner: Soup, macaroni, vegetables, bread, sometimes salt pork or salami or cheese, wine. Supper: Bread, coffee, milk.

Earnings of father	\$150 80
Earnings of mother, including board	60 00
Total	210 80

Cost of Living.

Bread	\$32 85	Fuel and incidentals	\$15 00
Coffee and milk	21 90		
Groceries, etc.	73 00	Expenditures	193 15
Rent	12 00	Earnings	210 00
Clothing	38 40		
		Surplus	16 85

No. 17. STONECUTTER.

Condition.—Family of four: Father, son aged 20, daughter, and a little girl. Expert chiseller; puts all but the finishing touches to statues and delicate marble work. Occupy two rooms, plank floor; has windows in front room looking on street and one window in back room overlooking court. Both rooms plain but neat—look comfortable. Family can read; dress neatly and generally respectable in appearance and mode of life.

Diet.—Breakfast: Coffee, milk, bread. Dinner: Macaroni, vegetables (as onions, beans, potatoes, etc.), bread and wine, and sometimes a little salami or pork; cheese, chestnuts, etc. Supper: Coffee, milk, bread or macaroni.

Earnings of father	\$480 00
Earnings of son	174 00
Total	654 00

Cost of Living.

Rent	\$28 00	Clothing and bedding	\$87 00
Bread and flour	54 75	Fuel and incidentals	66 56
Coffee	10 95		
Milk	29 20	Expenditures	540 71
Macaroni	25 55	Earnings	654 00
Meats	19 80		
Vegetables, fruits, etc	218 90	Surplus	113 29

REMARKS.—For fine stonecutting, such as chiselling the sculptor's statue from the rough block, long apprenticeship is necessary. A man 25 years of age who has been apprenticed ten to twelve years can earn \$5 per week; higher than this he will not go unless unusual skill be developed. If, in addition to the skill imparted by years of practice, the workman has a quick eye and natural talent, he may become a "finisher," earning from \$1.80 to \$2 per day. Men of this class are generally intelligent, saving, and industrious, and many of them have considerable amounts laid by in savings banks. Boys of 13 to 15 years of age get from \$1.30 to \$1.60 per week.

NO. 18. GLASS WORKER—VENICE.

Condition.—Family of four: Parents and two children. Occupy third-floor room; one window in room, overlooking canal. Father is a skilled worker in glass; makes delicate articles, as glass eyes, colored vases, etc. Mother attends to home and babies. Both father and mother can read.

Earnings of father \$275 40

Cost of Living.

Rent.....	\$15 00	Fuel, lights, etc.....	\$13 00
Bread.....	36 50		
Coffee and milk.....	36 50	Expenditures.....	252 49
Meat.....	14 40	Earnings.....	275 40
Groceries, etc.....	105 95		
Clothing.....	31 14	Surplus.....	22 91

NO. 19. GLASS WORKER—MURANO, DISTRICT OF VENICE.

Condition.—Family of five: Parents, son aged 19, son aged 18, girl aged 12. Occupy two small rooms, no ornamentation or comforts. Father ordinary glass maker, son the same, mother and girl also work in glass manufactory.

Diet.—Breakfast: Bread and milk or coffee or sometimes dried fruit, as figs, etc. Dinner: Soup—macaroni or rice, onions, sometimes fish, tripe, or salt pork, eggs, salad or funnochio, wine. Supper: Bread, milk, and coffee.

Earnings of father \$145 25

Earnings of sons 148 00

Earnings of mother 90 00

Earnings of girl 25 00

Total 406 25

Cost of Living.

Rent.....	\$18 00	Religion and incidentals.....	\$18 00
Bread.....	62 05		
Milk and coffee.....	47 45	Expenditures.....	365 26
Fish.....	10 95	Earnings.....	406 25
Meats.....	9 36		
Groceries.....	142 45	Surplus.....	40 99
Clothing and shoes.....	47 00		
Fuel and light.....	12 00		

NO. 20. WEAVER—PIEDMONT.

Condition.—Family of three: Parents and child. Father and mother are weavers. Father can read a little; otherwise no education. Live in one room—not well furnished.

Earnings of father \$120 00

Earnings of mother 87 00

Total 207 00

Cost of Living.

Rent.....	\$12 00	Fuel and light.....	\$15 00
Bread.....	32 85		
Coffee and milk.....	25 55	Expenditures.....	215 60
Cheese.....	10 95	Earnings.....	207 00
Groceries, etc.....	91 25		
Clothing.....	28 00	Deficit.....	8 60

EARNINGS AND EXPENSES OF WAGE RECEIVERS IN EUROPE. 421

Following is a general statement deduced from the preceding examples and from others not reproduced here :

AVERAGE DAILY WORKING TIME AND RATES OF WAGES IN ITALY—1885.

Occupation.	Number of hours.	Daily wages.
Tailor	10 to 12	\$0 70 to \$1 00
Stonemasons	10 to 12	50 to 70
Carpenters	10 to 12	40 to 60
Boys 12 to 15, working as hod carriers		10 to 20
Mechanics :		
skilled	10 to 12	50 to 80
ordinary	10 to 12	40 to 60
Weavers :		
hand-loom men	10 to 12	25 to 40
hand-loom women	10 to 12	20 to 30
steam-loom women	10 to 12	25 to 40
Shoemaker :		
skilled	10 to 12	50 to 80
ordinary	10 to 12	40 to 60
Shepherds	11 to 14	502 to 507
Day laborers	10 to 12	20 to 35
Cook :		
man		530 to 334
woman, wealthy family		220 to 25
man, in ordinary family		112 to 164
Lady's maid, in wealthy family		110 to 12
Servant of officer in army		503 to 054
Soldier in army		501 to 02
Soldier, in Vatican (Pope's Guard)		5147 to
Glass maker :		
skilled		80 to 1 00
ordinary		50 to 60
Stonecutter :		
after not less than six years' apprenticeship		80 to 1 00
ordinary		50 to 60
Printer		50 to 70

a With board.

b Without board.

c With board and lodging.

d In addition to army pay, uniform, and rations.

e With board, lodging, and uniform.

PRICES OF COMMODITIES IN ITALY—1885.

Article.	Price.	Article.	Price.
Milk, per quart	\$0.04 to \$0.06	New potatoes, per pound	\$0.02 to \$0.03
Wine, per quart .....	.08 to .16	Butter, ordinary, per pound .....	.16 to .20
Eggs, in winter, per dozen .....	.24	good, per pound .....	.20 to .40
summer, per dozen .....	.12 to .14	Coal, at seaport towns, per ton	5.00 to 6.00
Bread, common, per pound .....	.02 to .03	in interior, on railroads, per ton	5.00 to 8.00
superior, per pound .....	.03 to .04	off railroads, per ton	8.00 to 15.00
Figs, dried .....	.02 to .06	Mutton, per pound .....	.16 to .18
Strawberries (in season), per pound .....	.05 to .10	One sheep	3.00
Cherries (in season), per pound .....	.03 to .05	Pork, salted, per pound .....	.13 to .15
Cheese, Swiss, inferior .....	.08	fresh, per pound .....	.15 to .18
good .....	.13	Macaroni, first grade, per pound .....	.05 to .06
very best .....	.18	second grade, per pound .....	.03 to .04

Cost of Clothing.—A suit made to order by a fashionable tailor can be had: No. 1 wool; durable, stout cloth; stylish cut and appearance, for \$10. No. 2 wool (Italian manufacture), neat in appearance and good in wear, \$7.50. A laborer's suit, consisting of breeches, jacket, vest, flannel shirt, underwear, socks, neck tie, costs from \$4.45 up; to which must be added for shoes, if leather, \$1.25 to \$1.50; if wooden, 20 cents. A brick-layer's clothing outfit comprising breeches, jacket, vest, shirt, underwear, hat, handkerchiefs, shoes, costs at a minimum, \$10 to \$12.50.

Diet.—Articles in most general consumption—onions, macaroni, funnochio, tomatoes, oil, bread, milk, coffee, wine; when any meat, most generally salami (a kind of sausage), salt pork, tripe—rarely beef, mutton, or fresh meat. In Southern Italy, to the list of articles in very general use should be added, dried figs, chestnuts, and dried fruits of various kinds.

A laborer expending 20 cents per day for food would divide it about thus:

Bread.....	\$0. 04
Milk and coffee.....	4
Macaroni (or tripe) and onions.....	8
Wine.....	4
Total.....	20

TAXES AND TARIFFS IN ITALY.

Raw material, hides, silk cocoons, wool, hemp, flax, jute are duty free. Dutiable articles are taxed at the following rate, according to make, color, and quality:

Wool manufactures, per 224 lbs.....	\$10 00 to \$60 00
Woven goods, per 224 lbs.....	4 60 to 60 00
Blankets, per 224 lbs.....	22 00
Velvet, per kilogram (about 2½ lbs).....	1 60
Silk manufactures, per kilogram.....	1 20
Leather, tanned hides, per 224 lbs.....	5 00
Furs, per 224 lbs.....	12 00

Total importations into Italy were valued for 1877, at \$230,244,556.80.; for 1882, at \$269,080,235.60. .

Income on importations into Italy amounted in 1882 to \$28,508,016.40.

MUNICIPAL TAXATION—MILAN.^a

Awnings, per year.....	\$6 00
Houses, per year, per room.....	6 00
Servants, per year.....	1 00
Wine, octroi duty, per quart.....	2
Geese, chickens, etc., octroi duty, per head.....	3
Bread, per kilogram.....	1 cent to 2
Milk, per quart.....	1
Vegetables and eggs.....	free
Income tax, 13½ per cent.	

CONCLUDING REMARKS.

As dark a coloring as this report may seem to give, the general condition of the laboring classes in Italy is better to-day than for years past. It must be remembered that the climate is genial and mild, and that what in other lands might be extreme hardship is in Italy at most a mere inconvenience. Except among the high lands of the Appenines, and in Lombardy and Piedmont, and the northern section of the state, inability to purchase fuel does not occasion suffering or even hardship. In most large places, as Naples, Rome, Florence, etc., there exist what may be termed public kitchens, whither the frugal housewife takes a pound of macaroni to be cooked, or a quart of

^a The Municipal Government of Milan pays to the General Government, from its receipts from octroi duties, in round numbers, per year \$120,000. Naples, Rome, Genoa, and other cities pay to the General Government a similar tax, the amount being proportioned to the size of the city, and the sum received from octroi duties.

chestnuts to be boiled, or a pound of pork to be fried, so that lack of fuel is little deprivation for the Italian laborer's family, independent both of cold and cooking.

Very simple and primitive methods yet prevail in most parts of the country. A large amount of the manufactures is still the product of hand looms and hand machinery. Agricultural implements are of the oldest and simplest makes. A change, however, is becoming apparent. American machinery, notably improved agricultural implements, as reapers, ploughs, etc., is being introduced, and woollen and silk manufactures, especially in Lombardy and Piedmont, are using improved machinery and employing skilled workmen.

A general and radical change in the entire method of labor may be looked for within the next few years.

BELGIUM.

REMARKS.—The Belgian laborer is as industrious, perhaps, as the laborer of any other country in the world; two circumstances, however, operate to lessen the results which his energy and labor should produce. First, the extreme density of population, and consequent great amount of competition, and secondly, his habits of intemperance.

Beer, among the Germans, and light wines among the French and Italians, are consumed almost to the exclusion of other beverages; but in Belgium the workingman drinks not only a very unwholesome and inferior quality of wine and beer, but, to a considerable extent, rum and gin as well. Rum and gin drinking are on the increase, and many workmen lose Mondays through their Saturday night and Sunday dissipations.

In the matter of habitations the standard is considerably better than that in Italy. A moderately thrifty workman will rent a tenement house of from two to four rooms, the rent of such a house ranging from \$3 to \$6 per month, depending upon locality and other circumstances. In rural districts houses are generally provided with a small plot of ground for gardening. In the large cities this is wanting; the houses in Antwerp and Brussels, are built solidly together; the hallways opening into the houses are generally dark and narrow, and the stairs leading to the upper stories exceedingly crooked and steep. Often a rope is provided to hold to when going up the steps, it being impossible, or at least dangerous, to ascend otherwise. The system of "Bauer-dorfs," or "peasant villages," so universal in Germany and some other European states, does not prevail in Belgium. The peasant's house is usually detached, is one story high, and thatched. In addition to gardening, the peasant generally raises a little poultry, a pig or two, and cows, all these animals being housed either in one of the rooms of the peasant's house or in small sheds adjoining. The women treat animals under their charge with the greatest care. In cold or rainy weather they are particular to put a kind of rough blanket on the cows; they give them warm food, and in many ways care for small details which in other countries are more neglected.

In some of the large glass-manufacturing establishments expert glass blowers earn as much as \$3 per day; others engaged in making large glass vessels or other work requiring particular skill earn from \$1.50 to \$2 per day. Men of this class frequently own their own homes, or, if not, rent comfortable tenement houses of the better class, costing from \$10 to \$15 per month. The number, however, who receive the above-mentioned wages bear but a small proportion to the whole. Skilled paper makers, iron workers, woollen weavers, and similarly engaged workmen, will not average more than 50 to 65 cents per day.

Some of the larger manufacturers are taking steps toward the betterment of the habitations of their operatives, such as founding or encouraging social clubs, reading rooms, furnishing plain, wholesome dinners in large dining halls, etc.

Women engage in work quite as arduous as men; their pay, however, is always from 10 to 30 per cent. less.

No. 21.—PAPER MAKER—VICINITY OF ANTWERP.

Condition.—Family of three: Parents and small child. The parents both work in paper mill, earning together, on an average, 80 cents per day. Rent small house in common with another family; occupy the two rooms on upper floor. Rooms small, but tolerably comfortable; decorated with curtains and a few cheap pictures. During the day child is left in care of occupants of lower floor. The father is a young man, rather more intelligent than the average; reads and writes; belongs to workman's club; does not drink gin or rum.

Diet.—Breakfast: Rye bread, coffee, milk. Dinner: Beef soup, potatoes, bread, and occasionally sausage or pork, salad or other vegetable. Supper: Bread, coffee, milk, sometimes prunes or other cheap dried fruit.

Earnings of father	\$183 60
Earnings of mother	75 00
Total	258 60

Cost of Living.

Rent	\$24 00	Shoes (leather)	\$8 00
Bread	41 94	Religion and incidentals	13 00
Coffee, with milk	18 25		
Beer and sour wine	11 00	Expenditures	264 85
Rice, prunes, etc. (for Sundays) ..	8 32	Earnings	258 60
Sausage, corned meat, pork	47 32		
Groceries	55 67	Deficit	6 25
Clothing	37 35		

No. 22.—PAPER MAKER—VICINITY OF ANTWERP.

Condition.—Family of five: Parents, son aged 14, boy aged 11, and girl aged 8; father and mother work in paper mill, the father earning on an average about 51 cents per day; the mother, 25 cents. Son aged 14, working in paper mill, averages 25 cents per day. The boy and girl work in cigar factory, making centers, putting on inner wrappers, etc.; boy averages 17 to 20 cents per day, girl averages 10 to 15 cents per day. Occupy tenement of three rooms, crowded, dirty locality, not pleasant, offensive smells from canal. Not much furniture in house and but little attempt at decoration. Front room used as dining and sitting room and kitchen, cooking being done upon a kind of fire-place stove. Parents work in factory along with about 200 other hands. In busy seasons factory runs day and night. Mother complains of night work as hard on eyes. Boy and girl in cigar factory in delicate health, say work is too confining and unwholesome; can read a little, but not much.

Diet.—Breakfast: Bread, coffee, or sometimes beer, and cheese. Dinner: Meat soup, potatoes, onions, rice, bread, and often beer, occasionally sausage, corned meat, etc.; on rare occasions, fresh beef. Supper: Bread and coffee.

Earnings of father	\$147 90
Earnings of mother	72 50
Earnings of son of 14	54 00
Earnings of boy of 11	45 00
Earnings of girl of 8	29 90
Total	349 30

Cost of Living.

Rent	\$28 80	Shoes	\$11 00
Bread and flour	73 00	Religion and incidentals	12 00
Coffee or chicory	18 20		
Groceries, etc.	62 92	Expenditures	337 52
Meat, salted, corned, and fresh ..	15 60	Earnings	349 30
Beer and liquors	36 40		
Fuel and lights	15 60	Surplus	11 78
Clothing, including table linen, sheets, etc	64 00		

No. 23. WEAVERS—ANTWERP.

Condition.—Family of seven: Parents, daughter aged 20, husband and children of daughter; daughter aged 15. Father weaves silk, earning about \$5 per week. Married daughter weaves, earning 30 cents per day; daughter aged 15 also weaves. Husband of daughter stone mason, but not steadily at work. The mother stays at home, sewing, cooking, caring for children, etc. Occupying tenement house of four rooms; neat and comfortable; matting on floors, curtains and other evidences of neatness; father belongs to workman's club; older members of family can all read.

Diet.—Breakfast: Bread, coffee, milk. Dinner: Meat soup, salt pork or sausages, vegetables (as potatoes, cabbage, etc.), and on fête days, or Sundays, beer or wine. Supper: About same as breakfast.

Earnings of father	\$249 70
Earnings of married daughter	77 00
Earnings of unmarried daughter	61 00
Earnings of daughter's husband	130 00
Total	517 70

Cost of Living.

Rent	\$36 00	Clothing	\$63 96
Bread	109 50	Fuel	12 00
Coffee	51 10	Incidentals	24 00
Groceries	109 50		
Meats	25 50	Expenditures	466 56
Wine and beer	14 00	Earnings	517 70
Furniture, etc	21 00	Surplus	51 14

No. 24. WEAVERS—ANTWERP.

Condition.—Family of four: Parents and two small children. Occupy lodgings in upper part of tenement house. Two rooms. Front room has window and closet; back room small, used for kitchen and dining room. Father and mother both weavers; children too small to work.

Earnings of father	\$174 00
Earnings of mother	105 00
Total	279 00

Cost of Living.

Rent	\$18 66	Fuel and lighting	\$12 00
Bread	54 75	Furniture, etc	7 20
Coffee, milk, etc	29 20	Incidentals	17 00
Meat (about once a week)	10 40		
Groceries	64 53	Expenditures	276 64
Beer and tobacco	21 90	Earnings	279 00
Clothing and shoes	41 00	Surplus	2 36

No. 25. COLLIER—LIEGE.

Condition.—Family of six: Parents, daughter aged 15, boy aged 11, two girls aged 9 and 8. The father is a coal collier, mother shovels coal, girl of 15 carries coal on her back, the two children sweep manure off the streets. Occupy small house with three rooms—dingy, dirty locality—no effort at ornamentation. Family illiterate. Father gets drunk. A poor quality beer is the ordinary drink, but a considerable amount of gin is also consumed. The mother is coarsened by hard work, the daughter becoming so, while the two manure sweepers, living in the slums, rapidly lose whatever little refinement of nature they may have originally possessed. Father works twelve hours per day—six hours on and six hours off.

Diet.—Breakfast: Rye bread and coffee, and occasionally a little cheese. Dinner: Soup, beans, bread; sometimes varied with potatoes or rice, cabbage, etc. About once a week bacon or salt pork and beer. Supper: Rye bread and coffee or beer.

Earnings of father	\$156 00
Earnings of mother	87 00
Earnings of daughter	58 00
Earnings of two children	72 50
Total	373 50

Cost of Living.

Rent	\$24 00	Fuel and light	\$15 00
Bread	87 60		
Meats	18 25	Expenditures	371 10
Coffee, milk, etc	43 80	Earnings	373 50
Beer and spirituous liquors	43 80		
Groceries	76 65	Surplus	2 40
Clothing and shoes	62 00		

No. 26. CANNON FOUNDER—LIEGE.

Condition.—Family of three: Parents and child. Occupy three rooms of tenement house; carpet in bedroom, which is also used as parlor or receiving room; kitchen and dining room are one and the same. The third room very small, used as pantry. The father is a good workman; belongs to workman's club, and does not drink gin or rum. The mother works in a cloth manufactory. Both mother and father can read, and child is learning; air of neatness about the house above the ordinary.

Diet.—Breakfast: Coffee, milk, bread sometimes in addition, cheese, or a little dried fruit. Dinner: Soup, beans and pork, and bread—sometimes cabbage (sauerkraut), eggs or bacon, etc. Supper: Coffee, milk, bread.

Earnings of father	\$241 00
Earnings of mother	116 00
Total	357 00

Cost of Living.

Rent	\$36 00	Furniture, etc	\$30 00
Bread and flour	65 70	Incidentals	7 50
Coffee and milk	25 55		
Meats	36 50	Expenditures	348 48
Groceries	91 23	Earnings	357 00
Clothing	41 00		
Fuel and lights	15 00	Surplus	8 52

NO. 27. WINDOW-GLASS BLOWER—DISTRICT OF CHARLEROI.

Condition.—Family of six: Parents, son aged 18, daughter aged 17, boy aged 15, girl aged 7. Father is an expert blower; son, glass flattener, boy of 15 works in glass, daughter same. The mother is occupied only with household duties. Occupy house of five rooms, a small garden attached; clean, tidy appearance. Floors scrubbed and polished, mats in parlor and large bedroom. All the family, excepting small girl, can read and write. Father saving and thrifty; has money in savings bank.

Diet.—Breakfast: Coffee, milk, bread; sometimes eggs or bacon. Dinner: Vegetable or beef soup, potatoes, sauerkraut; occasionally beef, more often pork, bacon or similar meat, rice or bread pudding. Supper: Coffee, milk, bread; occasionally prunes, dried fruit, or honey.

Earnings of father	\$639 00
Earnings of son	210 10
Earnings of daughter	99 00
Earnings of boy	75 00
Total	1,023 10

Cost of Living.

Rent	\$75 00	Fuel and light	\$52 00
Clothing	121 60	Incidentals	25 90
Bread	65 70		
Coffee	18 25	Expenditures	770 65
Milk	29 20	Earnings	1,023 10
Meats	62 50		
Vegetables and groceries	255 50	Surplus	252 45
Furniture, etc. ^a	65 00		

NO. 28. WINDOW-GLASS MAKER—DISTRICT OF CHARLEROI.

Condition.—Family of five: Parents, boy aged 9, boy aged 8, girl aged 6. All but child work in glass manufactory. Occupy part of tenement house, two rooms—about 15 feet by 12, and one small room or pantry. Rooms clean but bare and unattractive. Family save money and have a small sum in savings bank.

Diet.—Breakfast: Coffee, rye bread. Dinner: Soup, potatoes, beets, cabbage, or similar vegetable, sometimes pork or bacon, on feast days occasionally fresh meat. Supper: Coffee, rye bread.

Earnings of father	\$193 00
Earnings of mother	130 00
Earnings of two sons	120 00
Total	443 00

Cost of Living.

Rent	\$36 00	Fuel and light	\$31 20
Bread	54 75	Religion and incidentals	24 00
Coffee	14 60		
Milk	32 75	Expenditures	416 35
Meats	9 60	Earnings	443 00
Beer, wine, etc.	18 25		
Groceries, etc.	146 00	Surplus	26 65
Clothing and shoes	49 20		

^a This item extraordinary; not expended every year.

No. 29. STONE MASON—BRUSSELS.

Condition.—Family numbers three: Parents and small child. Father is a stone mason, mother works in linen manufactory. The father begins work in summer at 5.30 a. m. and works until 7 p. m., with two hours rest during the day. In winter begins at 7 a. m. and quits at 5.30 p. m., stopping during the day for rest and meals about one hour. Occupy lodgings, two rooms in crowded house—sleep and live in one room, cook and eat in the other. Rooms plain and bare. Father can read and write, but does not belong to any club; drinks too much.

Diet.—Breakfast: Rye bread, coffee, milk. Dinner: Soup, beans, cabbage, bread, cheese, occasionally beer, bacon, salt pork, or fresh meat, cheese, rice pudding, etc. Supper: Rye bread, coffee, milk, sometimes dried stewed fruit.

Earnings of father (290 days)	\$261 00
Earnings of mother	130 50
Total	391 50

Cost of Living.

Rent	\$28 00	Bedding, etc.	\$12 33
Bread	32 85	Fuel and light	15 71
Coffee and chicory	10 95	Religion and incidentals	15 00
Milk	14 60		
Meats	7 30	Expenditures	357 04
Beer and spirits	21 75	Earnings	391 50
Groceries	153 30		
Clothing	39 00	Surplus	34 46
Shoes	6 25		

No. 30. WEAVER AND SUGAR REFINER—LILLE.

Condition.—Family of four: Parents and two children. Occupy two rooms in tenement house. First room used for bedroom and parlor—looks neat. Second room used as kitchen—small and uncomfortable. The father works in the sugar refinery; the mother is a weaver in a manufactory of cotton cloth. Neither have much education. Children are being sent to school.

Diet.—Breakfast: Rye bread, coffee, occasionally some potatoes. Dinner: Soup, vegetables (as beans, potatoes or cabbage, sauerkraut, etc.), bread, and occasionally salt pork or bacon, cheese, beer or buttermilk. Supper: Rye bread, coffee or beer.

Earnings of father	\$188 50
Earnings of mother	116 00
Total	304 50

Cost of Living.

Rent	\$36 00	Clothing and shoes	\$36 40
Bread	54 75	Fuel and incidentals	20 80
Potatoes	21 90		
Coffee, milk, etc.	43 80	Expenditures	311 22
Lard, butter, pig's fat, etc.	10 92	Earnings	304 50
Meats, groceries, etc.	58 40		
Beer and spirituous liquors	28 25	Deficit	6 72

No. 31. LACE MAKER AND FURNITURE JOINER—BRUSSELS.

Condition.—Family of seven: Parents, daughter aged 16, daughter aged 15, boy aged 12, girl aged 10, girl aged 9. Occupy three-room tenement house. Pleasant locality. The front room is used as dining room and parlor, and is carpeted. Room to rear of

parlor used for kitchen, bedroom upstairs. The father is a furniture maker. The mother makes lace; two oldest daughters work with mother. Family dress neatly; older members can read; drink a good deal of beer, but manage to save money; have an account in savings bank.

Diet.—Breakfast: Bread, coffee. Dinner: Vegetables, as sauerkraut, potatoes, beets, beans, etc., occasionally pork or sausage, cheese, bread, and beer. Supper: Bread, coffee, occasionally some sort of stewed dried fruit.

Earnings of father	\$211 25
Earnings of mother	146 25
Earnings of other members of family.....	174 25
Total	531 75

Cost of Living.

Rent	\$45 00	Light and fuel	\$22 97
Bread	91 25	Incidentals	36 00
Coffee, milk, etc.	51 10		
Meats	17 68	Expenditures	481 42
Groceries and vegetables.....	129 69	Earnings	531 75
Spirits, beer, etc.	26 50		
Clothing.....	61 25	Surplus	50 33

No. 32. PUDDLER—SERAING.

Condition.—Family numbers three: Parents and small child. Occupy tenement house, four rooms—kitchen, parlor or dining room, and two rooms on second floor; one large room used for sleeping apartment, one small room used as closet or store room. Parlor or dining room is carpeted, looks neat and cheerful. Bedroom plain but comfortable. Mother was formerly a woollen weaver, is occupied now only by sewing and general household duties. Father is a puddler in iron works.

Diet.—Breakfast: Bread, coffee, sometimes potatoes, or cheese. Dinner: Meat soup, vegetables, as beans, rice, potatoes, cabbage, etc.; sometimes pork, fresh meat, or eggs, bread and wine or beer. Supper: Rye bread, coffee, milk, sometimes a little stewed dried fruit.

Earnings of father	\$450 00
--------------------------	----------

Cost of Living.

Bread	\$54 60	Light and fuel	\$18 00
Meats	24 44	Incidentals	21 00
Coffee and milk	25 55		
Groceries and vegetables	171 55	Expenditures	413 14
Clothing	39 00	Earnings	450 00
Shoes	11 00		
Rent	48 00	Surplus	36 86

REMARKS.—At this place are works comprising every branch of industry connected with the manufacture of iron, as coal mines, iron-stone mines, puddling furnaces, cast-steel works, engine factories, etc. In these various departments of iron and mining industries, from nine to eleven thousand workmen are employed. The employes of the "Cockerill Works" at Seraing enjoy in every way comforts and conveniences greater than the ordinary. The hospital erected for the employes of the works is kept up at a cost of from \$9,000 to \$10,000 per year. There are savings banks, sick funds, good elementary schools, public kitchens and dining halls for such as desire to use them, and generally an air of thrift and well-being in gratifying contrast to the less favorable condition of the workman elsewhere.

No. 33. LABORER IN ROLLING MILL—SERAING.

Condition.—Family numbers five: Parents, son aged 15, son aged 14, girl aged 10. Occupy tenement house of three rooms—two bedrooms and one small room; use both as kitchen and dining room; the house is not well furnished, but is clean and neat. Father is considered a good laborer, but not skilled.

Diet.—Breakfast: Rye bread, coffee, sometimes potatoes or beans. Dinner: Soup (sometimes meat soup, sometimes vegetable), potatoes, onions or cabbage, occasionally salt pork or bacon; on some Sundays and fête days, fresh meat or eggs; some kind of pudding, beer. Supper: Rye bread, coffee, milk.

Earnings of father	\$171 00
Earnings of mother	105 00
Earnings of other members of the family	153 00
Total	429 00

Cost of Living.

Rent	\$39 00	Light and fuel	\$15 00
Bread	73 00	Incidentals	21 90
Coffee and milk	36 50		
Meats	32 85	Expenditures	411 42
Potatoes	23 72	Earnings	429 00
Groceries, vegetables, etc.	112 20		
Clothing	57 25	Surplus	17 58

No. 34. WORKMAN IN MACHINE SHOPS—SERAING.

Condition.—Single man, aged about 26. Hires lodgings and boards out. Several lodgers in one room, but condition nevertheless fairly good. He is reckoned to be a good mechanic. Is thrifty. Has money in bank.

Diet.—Breakfast: Rye bread, coffee, sometimes sausage or cheese. Dinner: Soup, meat, and potatoes, or other vegetables, as sauerkraut, onions, rice, etc., bread and pudding, or occasionally stewed dried fruit, and bread, beer, sometimes wine. Supper: Rye bread, coffee, milk.

Earnings	\$191 40
----------------	----------

Cost of Living.

Lodging and fuel	\$18 00	Expenditures	\$159 66
Board	87 36	Earnings	191 40
Clothing	25 35		
Beer and spirits	10 95	Surplus	31 74
Religion and incidentals	18 00		

Itemized Cost of Workman's Dinner.

Piece of bread	\$0 01
Soup	03
Meat and potatoes	04
Dessert of rice, or bread pudding, or dried fruit	02
Beer	02
Total	12

No. 35. COLLIER—SERAING.

Condition.—Family numbers four: Parents and two children. Occupy tenement house containing three rooms—house bare, but clean and neat; no carpets, but front room, used as parlor and dining room, is provided with mats. The two children go to elementary school. Father works on an average ten hours per day.

Diet.—Breakfast: Bread, coffee, sometimes potatoes or onions. Dinner: Soup, vegetables (as beans, cabbage, potatoes, or rice), sometimes sausage, pork, or bacon; once or twice a week a pudding of bread or rice; bread and beer. Supper: Bread, coffee, and milk.

Earnings of father.....	\$225 00
Earnings of mother.....	90 00
Total.....	315 00

Cost of Living.

Rent.....	\$36 00	Clothing and shoes.....	\$43 75
Bread.....	51 10	Incidentals.....	21 25
Potatoes.....	18 25		
Coffee and milk.....	40 15	Expenditures.....	322 62
Meats.....	12 77	Earnings.....	315 00
Fuel and light.....	16 00		
Groceries and beer.....	83 35	Deficit.....	7 62

ENGLAND.

REMARKS.—The following figures, condensed by Sir John Lubbock, M. P., from the latest official statistical report of the United Kingdom, are given as showing in a general way the comparative state of affairs in England in 1860 and in 1885. Amounts are given in round numbers.

Population in 1860 was under.....	29, 000, 000
Population in 1885 was over.....	36, 000, 000
Paupers in 1860.....	850, 000
Paupers in 1885.....	780, 000
Criminals convicted in 1860.....	14, 000
Criminals convicted in 1885.....	11, 000
Savings banks deposits in 1860.....	£40, 000, 000
Savings banks deposits in 1885.....	90, 000, 000
Income tax, schedule D, in 1860.....	120, 000, 000
Income tax, schedule D, in 1885.....	291, 000, 000
National debt in 1860.....	822, 000, 000
National debt in 1885.....	740, 000, 000
Exports in 1860.....	165, 000, 000
Exports in 1885.....	296, 000, 000
Imports in 1860.....	210, 000, 000
Imports in 1885.....	390, 000, 000
Shipping in 1860, tons.....	4, 600, 000
Shipping in 1885, tons.....	7, 400, 000

Notwithstanding the evidence of these figures that affairs are more prosperous now than formerly, and notwithstanding the fact that the condition of the English workman is undoubtedly superior to that of his brother on the continent, much is yet to be desired, and in many ways his condition is in a far from prosperous state. Certainly a not unimportant cause of this is the extent to which the evil of intemperance prevails. The inquiry into the itemized expenses of laborers' families showed in some instances that 36 per cent. of the earnings of the head of the family (from 10 to 15 shillings out of a wage of from 25 to 30 shillings) went for beer, ale, or spirituous drink. Expenditures under this head of from 10 to 20 per cent. appeared quite the rule.

In most of the manufacturing cities and centers, workmen's clubs have been organized. These clubs are provided with reading rooms, lecture halls, billiards, etc., and inquiry

upon the subject provoked a common opinion that they have exerted and are exerting a considerable influence for good.

The detailed statements of earnings and expenditures which immediately follow are for the families of some employes of two mills at Halifax. These mills, employing 800 operatives, are the largest cotton mills in Yorkshire. Raw cotton from Egypt and America is converted into hanks and warps at the rate of 80,000 pounds of yarn per week—or about five hundred miles of yarn per minute. The machinery used is of the most approved patterns, and for the most part is made in Lancashire, not above thirty miles distant. Three engines give an indicated power of 1,600 horse. The steam is generated in five large boilers fed by mechanical stokers, consuming 5,000 tons of coal per year (wholesale price per ton, \$1.80 to \$1.92). A large quantity of the products of these mills is sold and manufactured into cloth in the vicinity of Halifax. A considerable proportion, however, is exported to Germany, Austria, and Italy, notwithstanding the high tariffs existing in those lands. In Germany the tariff on every pound of full-worsted yarn is 2½ cents. The other countries mentioned have similar or higher tariffs upon this article.

Before going into the details of receipts and expenditures, a few words regarding wages of factory operatives at the time these inquiries were made (December, 1885), may not be out of place.

The rule is to pay by amount of work done. Taking the number of hours at 56½ per week, the weekly earnings of a young woman (16 years of age and upward) of ordinary ability will average \$2.40; one of extra ability will average \$3.60. A young man (14 to 17 years of age) will earn, depending on skill and industry, from \$2.88 to \$3.12 per week. Mule minders earn from \$7.20 to \$8.16 per week. This work in England is considered unfit for women, a woman's skirt being apt to become caught in the machinery. In Scotland, however, in some mills women wear bloomers and fill the positions of mule minders, it is said, as satisfactorily as men.

Children are, by act of Parliament, forbidden to work before the age of 10. Between the ages of 10 and 13 they are required to attend school half the day. If, at the close of his thirteenth year, the pupil fails to pass the examination fixed by law, he is required to continue another year at school. If attendance at school be missed one day the child must make up for it by attending the whole of the next day, instead of one-half. Thus, up to the age of 10 the English laborer's children are not permitted to work at all; and from 10 to 13, and sometimes 14, the maximum number of hours he is permitted to work per week is thirty.

Wages of child just turned 10 years, 28½ hours.....	\$0 43
Wages of child 12 to 13 years, 28½ hours.....	84
Wages of child just turned 13 years, 56½ hours.....	1 80
Wages of child just turned 13 years, 56½ hours.....	2 44

Overlookers who understand machinery earn from \$6 to \$9.60 per week. In the two mills under consideration there are ten overlookers, or slightly over 1 per cent. of the total number of hands employed.

Superintendents, one to each mill, average per week \$14.58.

PRICES IN HALIFAX, ENGLAND, DECEMBER, 1885.

Flour:

No. 1.....	per pound..	\$0 02½ to \$0 03
No. 2.....	per pound..	02½ to 02½

Eggs.....	per dozen..	24
-----------	-------------	----

Eggs (in summer)	per dozen..	12 to 16
------------------------	-------------	----------

Beef:

No. 1.....	per pound..	20
No. 2.....	per pound..	12 to 16

Sugar:

White granulated.....	per pound..	\$0 05½
Brown granulated.....	per pound..	03 to \$0 04
Coal.....	per ton..	3 60
House rent, two to three rooms.....	per week..	88
Gas.....	per 1,000 cubic feet..	54
Shoes.....		1 92
Stout working suit.....		6 00 to 8 75

No. 36. SPINNER—HALIFAX.

Condition.—Family numbers three: Parents and child. Occupy tenement house containing parlor and one bedroom, each about 15 by 12 feet, one small bedroom, and one kitchen or wash room. Parlor is also used for dining room, has window opening on street, is carpeted, and looks clean and comfortable. The grate is adapted for baking bread and simple cooking, saving expense of extra fires. Father reads and writes, and is generally intelligent. Wife was formerly weaver, but does not work now. She has a brother in the army, and sister emigrated to New Zealand. Family are saving, have small account in savings bank. The father belongs to a social and reading club. On Saturdays work stops at 1 p. m. afternoon spent at foot ball, cricket, or other outdoor sport. Family dress well, look contented and cheerful.

Diet.—Breakfast: Tea or coffee, bread and butter, sometimes bacon or eggs. Dinner: Piece of beef or chop, bread, butter and potatoes, sometimes other vegetables and cheese, and several times a week pudding. Supper: Bread and butter, tea or coffee, occasionally dried fruit.

Earnings of father.....\$411 32

Cost of Living.

Rent.....	\$45 76	Gas, or other light.....	\$5 51
Bread.....	32 95	Fuel.....	14 25
Meats.....	43 80	Club dues.....	1 44
Coffee and tea.....	14 56	Incidentals.....	11 96
Milk.....	21 90		
Vegetables.....	25 55	Expenditures.....	412 23
Fruit.....	7 30	Earnings.....	411 32
Groceries.....	149 65		
Clothing.....	37 60	Deficit.....	91

No. 37. MULE SPINNER—HALIFAX.

Condition.—Family numbers four: Parents and two children. Occupy four-room tenement house. Fairly comfortable. Father is a good workman; but drinks too much, and often loses Mondays. Children go to school; mother is a weaver.

Diet.—Breakfast: Tea, bread and butter, sometimes pork or bacon. Dinner: Soup, roast beef or chop, potatoes, pickle, ale or beer, sometimes rice or plum pudding. Supper: Bread and butter, tea, coffee and milk, and what is left over from dinner.

Earnings of father.....\$312 00
Earnings of mother.....218 40

Total.....530 40

12854 LAB—28

Cost of Living.

Rent.....	\$54 75	Groceries.....	\$29 20
Bread and flour.....	69 45	Educational, amusements, etc....	12 77
Meats.....	62 05	Clothing.....	53 25
Lard, butter, and cheese.....	69 45	Furniture, etc.....	31 00
Milk.....	18 25		
Coffee.....	7 30	Expenditures.....	527 91
Tea.....	9 12	Earnings.....	530 40
Eggs.....	10 95		
Light (gas and oil).....	5 47	Surplus.....	2 49
Beer, spirits, and tobacco.....	94 90		

No. 38. SPINNER—HALIFAX.

Condition.—Family numbers five: Parents and three children. Occupy house of three rooms, not including kitchen or wash room; parlor used also as dining room; is carpeted and looks neat. Two bedrooms on second floor; one about 12 by 14 feet, the other smaller, occupied by the children.

Diet.—Breakfast: Tea or coffee, bread and butter, sometimes potatoes and bacon. Dinner: Meat or fish, vegetables, ale or beer, occasionally pudding. Supper: Bread and butter, tea or coffee, occasionally dried stewed fruit.

Earnings of father.....	\$374 40
Earnings of mother.....	187 20
Earnings of boy of 11 and girl of 12.....	64 48
Total.....	626 08

Cost of Living.

Rent.....	\$41 60	Fuel and light.....	\$23 44
Bread.....	76 65	Incidentals.....	29 50
Coffee and tea.....	20 07		
Meat and fish.....	98 55	Expenditures.....	607 52
Vegetables.....	32 95	Earnings.....	626 08
Milk.....	27 37		
Groceries.....	186 15	Surplus.....	18 56
Clothing.....	71 24		

No. 39. MULE SPINNER—HALIFAX.

Condition.—Single man, aged about 23. Boards with family of mill operatives—four others in same room, which is, however, large and well ventilated, having two windows looking on the street. Young man has average skill and industry. Belongs to Liberal club. Spends a good deal on billiards and ale.

Diet.—Breakfast: Bread and butter; sometimes bacon or pork, tea or coffee. Dinner: Soup, roast beef and potatoes, occasionally rice or cabbage, or other vegetable, and once or twice a week some sort of pudding. Supper: Bread, coffee, tea; sometimes potatoes warmed over; dried fruit.

Earnings.....	\$344 30
---------------	----------

Cost of Living.

Board, light and fuel.....	\$182 52	Incidentals.....	\$11 00
Beer, ale, and tobacco.....	50 96		
Clothing.....	21 75	Expenditures.....	300 59
Amusements, club dues, etc.....	29 60	Earnings.....	344 30
Shoes.....	4 76		
		Surplus.....	43 71

No. 40. OVERLOOKER—HALIFAX.

Condition.—Family numbers seven: Parents, girl aged 17, girl aged 15, three children from 5 to 12. Two oldest girls work in mills, the one as a spinner, the other as twister. Occupy tenement house of two floors, three rooms to the floor. The parlor is carpeted and the walls papered; looks neat and inviting. Bedrooms are comfortably furnished, and two of them have windows looking on the street. The family dress well; go to church. The father is member of a social club, is thrifty, and has money in the bank. Children go to school. The mother attends to household work, sewing, cooking, etc.

Diet.—Breakfast: Bread and butter, tea or coffee, occasionally potatoes, or remnants of dinner of day before, as piece of cold meat, beef, or bacon. Dinner: Chop with bread and potatoes, one other kind of vegetable, pudding. Supper: Bread, tea or coffee.

Earnings of father	\$468 00
Earnings of two daughters	260 00
Total	728 00

Cost of Living.

Rent	\$62 40	School fees	\$6 24
Bread	91 25	Furniture <i>a</i>	39 25
Meats	94 90	Incidentals	31 60
Coffee and tea	16 42		
Milk	18 25	Expenditures	727 25
Vegetables	45 62	Earnings	728 00
Beer and tobacco	74 82		
Groceries	175 00	Surplus	75
Clothing	71 50		

No. 41. SPINNER—HALIFAX.

Condition.—Family numbers four: Parents, two children. Occupy tenement house, containing on second floor one bedroom, size 14 by about 12 feet; one small room, or rather large closet, over hall. On the first floor, one room with window looking on street, used as parlor and dining room, and small kitchen or washroom. Both the bedroom and parlor are neatly and comfortably furnished. The children go to school. The father is skilful and industrious. The mother is a twister in cotton mill.

Diet.—Breakfast: Coffee or tea, bread, and butter, sometimes bacon or pork. Dinner: Vegetables, as potatoes, cabbage and onions, meat (salted, or, several times a week, fresh beef, or chop), bread, and sometimes pudding, ale or beer. Supper: Bread, tea or coffee.

Earnings of the father	\$405 60
Earnings of the mother	202 80
Total	608 40

Cost of Living.

Rent	\$49 92	Light and fuel	\$23 86
Bread	58 40	Clothing and shoes	52 00
Meats	73 00	Incidentals	21 40
Coffee and tea	20 81		
Vegetables	32 85	Expenditures	567 48
Groceries	185 92	Earnings	608 40
Beer and tobacco	38 37		
Fruit (green and dried)	10 95	Surplus	40 92

a Extraordinary expenses, not incurred every year.

No. 42. MILL SUPERINTENDENT—HALIFAX.

Condition.—Family numbers five: Parents, three children from 4 to 8 years old. Occupy tenement house of five rooms; pleasant locality; house is kept clean; well furnished; is supplied with water and gas. Parlor is carpeted; oil cloth in kitchen. Oldest child goes to school. Family dress well; possess more than average intelligence. The father earns about \$14 per week.

Diet.—Breakfast: Bread and butter, tea or coffee; occasionally potatoes and fried bacon or eggs. Dinner: Soup, roast beef, chop, or veal cutlet, vegetables (potatoes generally, though sometimes rice, cabbage, onions, etc.), bread, and several times a week pudding. Supper: Bread and butter, coffee or tea, dried stewed fruit.

Earnings of father..... \$719 72

Cost of Living.

Rent and water rates.....	\$62 40	Fuel.....	\$23 40
Bread.....	73 00	Clothing.....	76 00
Meat and fish.....	89 43	Incidentals.....	39 25
Lard, butter, cheese, etc.....	65 70		
Fruits (dried and fresh).....	33 80	Expenditures.....	629 62
Coffee and tea.....	27 37	Earnings.....	719 72
Milk.....	20 07		
Groceries, etc.....	112 00	Surplus.....	90 10
Gas and other light.....	7 20		

No. 43. SPINNER—HALIFAX.

Condition.—Family numbers eight: Parents, wife's sister, five children 6 to 15 years of age. Occupy tenement house of four rooms. Rather dingy locality, house not well furnished. Parents and younger children occupy second-floor bedroom, size about 11 by 13 feet. Wife's sister and eldest daughter occupy small hall room adjoining. On the first floor one room, 11 by 13 feet, used as parlor and dining room, and in the rear a small room used as kitchen and washroom. The family dress poorly. Father drinks too much and often loses Mondays. The eldest daughter, aged 15, and wife's sister also work in cotton mill.

Earnings of father..... \$322 40

Earnings of wife's sister..... 187 20

Earnings of daughter..... 104 52

Total..... 614 12

Diet.—Breakfast: Bread, tea or coffee, sometimes American bacon. Dinner: Bacon or pork, once or twice a week fresh meat, potatoes, etc.; on Sundays a pudding, ale or beer, and bread. Supper: Bread and butter, coffee or tea; occasionally a little cheese.

Cost of Living.

Rent.....	\$44 20	Fuel and light.....	\$18 75
Bread and flour.....	116 80	Education and incidentals.....	13 40
Vegetables.....	65 00		
Meats.....	46 50	Expenditures.....	623 76
Groceries.....	182 00	Earnings.....	614 12
Beer, ale, and tobacco.....	87 60		
Clothing.....	49 51	Deficit.....	9 64

No. 44. CARPET WEAVER—HALIFAX.

Condition.—Family numbers four: Parents and two small children. Occupy two-story house, two rooms to each floor. House plain but clean. The family dress neatly

and live well. The father is sober and industrious. Can save money ordinarily, but is cramped now because children are very young and the mother is not able to work.

Diet.—Breakfast: Bread, coffee, milk. Dinner: Soup, bacon, cheese, several times a week fresh meat, as beef or chops, potatoes, rice or beans, bread, and beer. Supper: Bread and butter, tea or coffee, sometimes potatoes, cold meat, or other remnant of dinner.

Earnings\$364 00

Cost of Living.

Rent.....	\$42 12	Fuel and light.....	\$17 25
Bread.....	47 45	Incidentals.....	32 40
Milk.....	18 25		
Coffee and tea.....	21 90	Expenditures.....	389 22
Groceries.....	133 05	Earnings.....	364 00
Meats.....	31 20		
Beer, ale, and spirits.....	14 60	Deficit.....	25 22
Clothing.....	31 00		

NO. 45. CARPET WEAVER—HALIFAX.

Condition.—Family numbers six: Parents, three children, and mother of the father. Occupy tenement house of four rooms; unattractive locality. The rooms are bare and poorly furnished. The mother also is a carpet weaver. The father averages fifty-six and one-half hours per week; the mother is delicate and unable to work full time.

Diet.—Breakfast: Bread, coffee or tea, occasionally molasses. Dinner: Lentils, potatoes, pork or bacon, or several times per week beef, bread, ale, or beer; Sundays a bread, rice, or other pudding. Supper: Bread, tea or coffee.

Earnings of father.....	\$374 40
Earnings of mother.....	144 00
Earnings of boy.....	31 20
Total.....	549 60

Cost of Living.

Rent.....	\$41 60	Light and fuel.....	\$21 16
Bread and flour.....	87 60	Education and incidentals.....	22 37
Coffee and tea.....	23 72		
Milk.....	21 90	Expenditures.....	542 67
Groceries, ale, beer, and tobacco.....	223 60	Earnings.....	549 60
Meats.....	41 32		
Clothing, shoes, and hats.....	59 40	Surplus.....	6 93

NO. 46. WOOL SORTER—HALIFAX.

Condition.—Family numbers eight: Parents, five children, aged from 3 to 13 years, and girl aged about 17, sister of the father. Occupy four-room tenement house, plainly furnished and altogether too small for the family. Three rooms are used for sleeping apartments; the fourth room serves for kitchen, dining and wash room. The sister and two eldest children work in the same mill, which produces carpets.

Diet.—Breakfast: Bread and butter, coffee or tea. Dinner: Meat and potatoes, rice or lentils, bread and butter, beer; sometimes bread, rice or other pudding. Supper: Bread, butter, tea or coffee; occasionally dried fruit, or leavings of dinner.

Earnings of father.....	\$312 00
Earnings of sister.....	209 04
Earnings of two children.....	66 58

Total\$587 62

<i>Cost of Living.</i>			
Rent.....	\$46 28	Groceries.....	\$189 76
Bread and flour.....	105 85	Clothing.....	57 50
Beer, spirits, and tobacco.....	54 38	Incidentals, etc.....	22 50
Tea and coffee.....	19 24		
Milk.....	23 12	Expenditures.....	614 96
Gas and other light.....	6 24	Earnings.....	587 64
Fuel.....	13 40		
Vegetables.....	26 77	Deficit.....	27 32
Meats.....	49 92		

NO. 47. CARPET WEAVER—HALIFAX.

Condition.—Family numbers three: Parents and child. Occupy upper half of tenement house of four rooms. The father is industrious and thrifty; has small sum in savings bank; is a member of reading and social club. The mother dresses neatly, and works half time.

Diet.—Breakfast: Bread, butter, sometimes bacon, coffee or tea. Dinner: Soup, bacon, pork, or often fresh meat (mutton or beef), potatoes, rice, ale or beer; Sundays, a pudding. Supper: Bread, tea or coffee, occasionally potatoes warmed over, or cheese.

Earnings of father.....	\$375 00
Earnings of mother.....	113 36
Total.....	488 36

<i>Cost of Living.</i>			
Rent.....	\$24 96	Fuel and light.....	\$16 50
Bread and flour.....	49 27	Clothing.....	37 40
Meats.....	73 00	Carpet.....	1 55
Lard, butter, etc.....	40 15	Incidentals.....	23 30
Tea and coffee.....	18 20		
Milk.....	19 42	Expenditures.....	474 57
Beer and ale.....	23 73	Earnings.....	488 36
Groceries.....	145 65		
Club dues.....	1 44	Surplus.....	13 79

NO. 48. SPINNER—LEEDS.

Condition.—Family numbers five: Parents, and three children from 4 to 11 years of age. Occupy tenement house of three good-sized rooms, and one hall room. First floor front room used as dining room and parlor; is carpeted and looks cheerful and inviting. Family dress well; seem saving and industrious. Two older children go to school.

Diet.—Breakfast: Bread, bacon, sometimes cheese, coffee or tea. Dinner: Beef, vegetables, bread, and beer; once or twice a week, pudding. Supper: Bread, coffee or tea, occasionally molasses, or remnants of dinner.

Earnings of father.....	\$395 20
Earnings of mother.....	172 80
Earnings of boy, half time.....	23 40
Total.....	591 40

a The mother bakes her own bread, and frequently has for breakfast or supper "soones," a kind of hot bread or cake.

EARNINGS AND EXPENSES OF WAGE RECEIVERS IN EUROPE. 439

<i>Cost of Living.</i>			
Rent	\$51 40	Clothing	\$49 75
Bread and flour	80 30	Fuel and light	21 05
Milk	18 25	Religion and incidentals	19 70
Tea and coffee	22 88		
Cheese	9 90	Expenditures	568 88
Meats	76 65	Earnings	591 40
Spirits and tobacco	36 50		
Groceries	182 50	Surplus	22 52

REMARKS.—The same general conditions prevail here as at Halifax. The workman's home consists ordinarily of a tenement house containing three to six rooms. There is no material difference in the wages of this district and of Halifax. An industrious man weaver may average 30 shillings (\$7.20) per week; a woman weaver from \$3.60 to \$5 per week, according to skill and industry. A bricklayer averages 5 to 6 shillings (\$1.20 to \$1.44) per day, and generally wages are about as stated in the figures for Halifax.

NO. 49. ENGINEER IN WOOLEN MILL—LEEDS.

Condition.—Family numbers seven: Parents, three children 5 to 10 years of age, and two girls aged 12 and 13. Occupying comfortable cottage containing four rooms and a small kitchen or wash room. The bedrooms are comfortably furnished; two of them have windows looking on street. Family dress well and go to church. The father does not absolutely need the assistance of the two older children, but prefers that they grow up industrious. They go to school half of each day and work in mills the other half, excepting on Saturdays and Sundays, when they neither work nor attend school. The father is industrious and saving, has account in savings bank, is member of club, and does not drink to excess.

Diet.—Breakfast: Bread, tea or coffee; sometimes bacon and potatoes. Dinner: Soup, and the meat of the soup (several times a week fresh meat), rice or lentils, potatoes, bread, ale or beer. Supper: Bread and butter, coffee, tea, milk, and occasionally a little dried fruit.

Earnings of father	\$386 88
Earnings of mother	192 40
Earnings of two girls	64 48
Total	643 76

<i>Cost of Living.</i>			
Rent	\$62 40	Fuel and light	\$23 50
Bread and flour	87 60	House ornaments, etc.	17 50
Meats	91 25	Incidentals	31 40
Tea and coffee	20 02		
Milk	16 47	Expenditures	618 14
Vegetables	33 85	Earnings	643 76
Groceries	164 25		
Clothing	69 90	Surplus	25 62

NO. 50. BRICKLAYER—LEEDS.

Condition.—Family numbers six: Parents, son aged 16, girl about 15, and two children. Occupy cottage with four rooms, not including small wash room or kitchen. House is not well furnished, and general appearance is not inviting. The father is a good bricklayer, but drinks a good deal and does not work full time. The son and oldest daughter work in woollen mills. Family dress poorly.

Earnings of father	\$286 00
Earnings of son	162 24
Earnings of daughter	156 00
Total	606 24

Diet.—Breakfast: Bread, bacon, coffee. Dinner: Bacon or pork, or occasionally ham or beef, potatoes, ale or beer, bread; on Sundays a pudding of some sort. Supper: Bread, tea or coffee; sometimes potatoes warmed over, or other remnant of dinner.

<i>Cost of Living.</i>			
Rent	\$49 92	Light and fuel	\$19 75
Bread and flour	91 25	Bedding, etc.	12 49
Coffee and tea	17 68	Education and incidentals	18 20
Milk	14 60		
Meats	52 86	Expenditures	624 10
Beer, ale, gin, and tobacco	102 20	Earnings	606 24
Groceries	193 45		
Clothing	40 20	Deficit	17 86
Shoes	11 50		

NO. 51. DOCK-YARD LABORER—LIVERPOOL.

Condition.—Family numbers five: Parents and three children. Occupy two small rooms in large tenement house. Surroundings are uncomfortable and uncleanly. The family dress miserably. All drink too much, and their general condition is one of hardship and poverty. The father is a "substitute" dock-yard laborer. When working earns 10 cents an hour, but does not average above five or six hours per working day. The mother goes out house cleaning, scrubbing, etc. The children for the most part left to care for themselves are growing up, apparently, to become either beggars or criminals.

Diet.—Breakfast: Bread and coffee. Dinner: Bread, potatoes or beans, sometimes bacon or soup and soup meat. Supper: Bread and coffee; occasionally potatoes or beans warmed over, or a little cheese.

Earnings of father	\$155 95
Earnings of mother	100 00
Total	255 95

<i>Cost of Living.</i>			
Rent	\$24 96	Beer and spirits	\$22 00
Bread and flour	76 65	Clothing	21 90
Coffee and chicory	13 00	Light, fuel, and incidentals	17 00
Milk	10 95		
Meats	16 42	Expenditures	273 21
Cheese	8 34	Earnings	255 95
Potatoes	12 72		
Groceries	49 27	Deficit	17 26

REMARKS.—This class of labor is as poorly paid, and is in as miserable a condition, as perhaps any class of labor in the kingdom. Though the absolute sum received by the regularly employed navy is greater than the wage of a laborer or even a skilled mechanic in Italy, yet the former has a more inclement and trying climate, his wants, fancied or real, are more numerous, and he is less able to maintain health and happiness on 80 cents a day than is done in Italy on half that sum.

The condition of the irregularly employed navy is, of course, even more deplorable. The docks of London, Liverpool, and the other large ports are crowded with these miserable men awaiting the uncertain chance of a few hours' employment. Through the fogs and drizzling rains of the long English winters they stand around shivering, and when a vessel arrives to be unloaded a hundred men apply where perhaps only ten are needed. In short, this class of men, though willing, even anxious to work, may be regarded as in a state little short of beggary.

Within the last five years charitable societies have turned their attention in some degree toward this large and needy class, and now, at many places, especially the London docks, stands have been established where are furnished at nominal prices plain but nourishing meals, consisting ordinarily of hot soup, beef hash, coffee, bread, and, when any desert, a piece of pie or bit of pudding. Were it not for this charity, it would be difficult to understand how many of the London and Liverpool and other dock-yard navvies succeed in existing.

No. 52. NAVVY—LIVERPOOL.

Condition.—Family numbers six: Parents, boy aged 14, and three children 7 to 11 years of age. Occupy two rooms on third floor of large lodging house; one room has a window looking on dim court; other room opens on hallway at head of steps and has no window; bad light and bad air; general appearance unfavorable. The father is "first hand" navvy, that is, is regularly employed when there is work; boy of 14 works in a grocery store; the mother does some washing, cooks, and attends to household.

Diet.—Breakfast: Bread and butter; occasionally cheese, molasses, coffee. Dinner: Bread and potatoes, pork or bacon, and sometimes soup and the meat of the soup. Supper: Bread and coffee.

Earnings of father	\$223 00
Earnings of mother	99 84
Earnings of boy	62 40
Total	385 24

Cost of Living.

Rent	\$31 20	Beer, ale, and tobacco	\$26 30
Bread and flour	87 60	Education and incidentals	23 55
Coffee and tea	15 42		
Milk	10 95	Expenditures	385 91
Meats	43 80	Earnings	385 24
Vegetables	31 02		
Groceries	76 17	Deficit	67
Clothing and shoes	39 90		

No. 53. DOCK-YARD LABOREE—LIVERPOOL.

Condition.—Family numbers four: Parents, child, and mother of the husband. Occupy two rooms looking on court. The rooms are rather bare, but are kept neat and clean. The father works at the docks, the wife sews on rough work for ready-made clothing firms. The grandmother, who is feeble, looks after the house and child. The head of this family may be considered doing as well as the average industrious navvy.

Diet.—Breakfast: Bread, coffee or tea. Dinner: Bread, potatoes, salt pork, and beans, or sometimes soup and soup meat, or fresh meat, coffee or beer. Supper: Bread and butter, tea or coffee.

Earnings of father	\$225 36
Earnings of mother	180 54
Total	405 90

Cost of Living.

Rent.....	\$31 20	Fuel and light.....	\$17 25
Bread and flour.....	65 70	Incidentals.....	20 95
Coffee, chicory, and tea.....	16 60		
Meats.....	44 75	Expenditures.....	403 66
Cheese, butter, and eggs.....	21 86	Earnings.....	405 90
Groceries.....	142 35		
Clothing.....	43 00	Surplus.....	2 24

No. 54. BRICKLAYER—LIVERPOOL.

Condition.—Family numbers five: Parents, and three children from 1 to 5 years of age. Occupy small cottage of four rooms; surroundings good. The father is industrious; ordinarily could save money, but with present large young family is just able to make both ends meet. Family dress neatly; the mother, in addition to caring for the children, cooks and does all household work.

Diet.—Breakfast: Bread and butter, coffee or tea, sometimes cheese or molasses. Dinner: American bacon, or, several times per week, fresh beef, potatoes, or beans, beer; Sundays a pudding. Supper: Bread, tea or coffee, and occasionally meat or potatoes left from dinner.

Earnings of father \$384 40

Cost of Living.

Rent.....	\$53 04	Clothing (including shoes).....	\$39 50
Bread and flour.....	63 61	Incidentals, including medical attendance.....	29 20
Meat.....	54 38		
Groceries, beer, and ale.....	95 45	Expenditures.....	384 40
Tea and coffee.....	15 62	Earnings.....	384 40
Milk.....	15 16		
Fuel and light.....	18 44		

No. 55. BRICKLAYER—MANCHESTER.

Condition.—Family numbers four: Parents and two children. Occupy cottage of three rooms and small kitchen; pleasant locality; general air of the place, one of comfort. The family dress neatly; mother attends to house and children and sews; the father is a good and industrious bricklayer, making on an average 32 shillings 6 pence (\$7.80) per week.

Diet.—Breakfast: Bread, butter, coffee or tea; sometimes bacon and molasses. Dinner: Bread, potatoes, rice or beans, pork or beef, ale; once or twice a week (generally Sundays) a pudding. Supper: Bread, tea or coffee, now and then cheese, or remnants of dinner, as potatoes warmed over, etc.

Earnings of father \$405 60

Cost of Living.

Rent.....	\$62 40	Fuel.....	\$14 40
Bread and flour.....	49 32	Beer, tobacco, etc.....	18 72
Meats.....	51 66	Clothing.....	42 00
Coffee and tea.....	14 60	Religion and incidentals.....	24 96
Milk.....	12 77		
Vegetables.....	18 25	Expenditures.....	405 60
Groceries.....	92 87	Earnings.....	405 60
Oil and other light.....	3 65		

EARNINGS AND EXPENSES OF WAGE RECEIVERS IN EUROPE. 443

NO. 56. CARPENTER—DISTRICT OF MANCHESTER.

Condition.—Family numbers seven: Parents, and five children from 3 to 14 years of age. Occupy five-room tenement. House plainly but comfortably furnished. The parlor, used also for dining room, has carpet and a few cheap pictures. This room is also used for light cooking, the "fireplace stove" being arranged for that purpose. There is, however, a small room used as kitchen and wash room. The boy of 14 works in cotton mill, though not full time. The father is a good carpenter; averages \$1.44 per day, or \$8.64 per week.

Diet.—Breakfast: Bread and butter, tea or coffee; occasionally cheese or bacon or potatoes. Dinner: Soup, meat of the soup, several times a week fresh meat, potatoes, bread, and beer, and Sundays rice or other pudding. Supper: Bread, butter, tea or coffee, and occasionally cheese or molasses.

Earnings of father	\$432 00
Earnings of son	93 00
Total	525 00

Cost of Living.

Rent	\$67 60	Butter	\$9 95
Bread and flour	101 92	Other groceries	103 85
Meats	57 67	Light and fuel	21 75
Coffee and tea	20 87	Clothing and shoes	63 45
Milk	11 52	Incidentals	13 75
Sugar and molasses	14 79		
Vegetables	24 28	Expenditures	525 00
Cheese	6 30	Earnings	525 00
Lard	7 30		

NO. 57. BLACKSMITH—DISTRICT OF BIRMINGHAM.

Condition.—Family numbers five: Parents and three children. Occupy cottage containing three rooms. House is passably comfortable, though rather too small for the size of the family. Two rooms are used for sleeping; the third room serves as dining room, kitchen, and parlor. The father is a horseshoer.

Diet.—Breakfast: Bread and butter, or cheese, tea or coffee. Dinner: Pork and beans, potatoes, or rice; sometimes fresh meat and pudding; bread. Supper: Bread, tea or coffee, occasionally molasses, or potatoes or other food warmed over from dinner.

Earnings of father	\$364 00
--------------------------	----------

Cost of Living.

Rent	\$44 20	Groceries	\$106 49
Bread and flour	69 45	Clothing	34 56
Meats	31 07	Incidentals	9 60
Coffee and tea	12 77		
Milk	18 85	Expenditures	379 65
Vegetables	19 90	Earnings	364 00
Cheese and butter	16 16		
Oil and other light	3 12	Deficit	15 65
Fuel	13 48		

NO. 58. SHOEMAKER—DISTRICT OF LEEDS.

Condition.—Single man, aged about 23. Boards with workman's family in tenement house. Is a "cutter," and earns per day, on an average, 4 shillings and 5 pence (\$1.06).

Earnings	\$330 72
----------------	----------

Cost of Living.

Board, with light and fuel	\$149 24	Incidentals	\$30 60
Clothing	16 09		
Shoes	3 84	Expenditures	252 69
Other clothing (shirts, underwear, etc.)	9 12	Earnings	330 72
Beer and billiards	43 80	Surplus	78 03

No. 59. SHOEMAKER—LONDON.

Condition.—Family numbers five: Parents and three children. Occupy two rooms in a large tenement house; crowded, unpleasant locality. The water pipes in this house are constantly out of repair, causing an offensive smell. The father is a sewing-machine operator on shoes, works in factory where best machinery is in use. A good article of shoe is made to order and finished in an afternoon for 7s. 11d. (\$1.90).

Diet.—Breakfast: Bread and coffee, sometimes bacon or cheese. Dinner: Bread, potatoes, bacon or occasionally fresh pork or beef, lentils—sometimes dried fruit or pudding, beer or ale. Supper: Bread and butter, coffee.

Earnings

\$424 32

Cost of Living.

Rent and water rates	\$74 88	Light and fuel	\$19 68
Bread and flour	69 35	Clothing	48 50
Meats	32 85	Incidentals	24 55
Coffee and tea	17 90		
Milk	10 95	Expenditures	424 32
Groceries and beer	125 68	Earnings	424 32

REMARKS.—Several years ago there was established in London what was called a "vegetarian" restaurant. This restaurant is still in operation. The bill of fare contains ordinarily such dishes as oatmeal or crushed wheat, with sugar and milk, various kinds of vegetable soups, potatoes, lentils, other sorts of vegetables, puddings of rice or bread, stewed fruit, pie, bread, tea, coffee, or milk. For 6d. (12 cents) any three of these dishes are served; for 4d. (8 cents) any two are served. Each course is liberal in quantity, and for 6d., or even 4d., a very substantial and nourishing meal may be had. This style of restaurant is steadily growing in favor, especially with young men and women not living with their families. Where not long ago there was but one such vegetarian restaurant, there are now a dozen or more scattered in various parts of the metropolis. In London very few housewives bake bread, that article being almost always obtained at the bake shops. This is not so much the rule in provincial cities (as Bradford, Halifax, Leeds). In such cities a large proportion of workmen's families do their own baking, and in particular seem fond of a kind of light bread called "scone," made with soda and eaten hot.

GERMANY.

REMARKS.—It would be impossible to convey a true idea of the condition of the laboring class in Germany without first considering the question of beer. Beer is so universally used and its consumption forms so large a part of the workman's expenditures, that a full understanding of this subject is necessary in order to obtain an insight into the German workman's true condition and mode of life.

In 1870 there were in Prussia alone 120,000 saloons and 40,000 public houses where liquors were sold. In 1880 the German census showed an increase of 38 per cent., or from 160,000 saloons and public houses the figures had risen to, in round numbers, 200,000, and the average daily consumption for every man, woman, and child was four

glasses. Twenty-seven per cent. of the male lunacy in Prussian asylums is attributed to drink. Almost every workman belongs to a beer *kneiper* or club.

A *kneiper* is formed by a dozen or so men, fellow workmen, or neighbors, agreeing to meet at the nearest public house certain nights of the week, there to drink beer and smoke. One man orders a round of beer. The glasses hold each a pint, but they drink the last drop, and another of the party returns the first man's treat. A second round comes and goes. Number three next treats, and so on until sometimes as many as a dozen pint glasses have been emptied at one sitting per man.

Leaving aside the question of health this custom is attended by two unfortunate results: it lessens or destroys the love for domesticity and home, and consumes a very considerable portion of the family's earnings.

At many of the large cotton and woollen mills, in addition to the beer consumed at the regular meals, extra allowances are deemed necessary, and at 11 in the morning and at 4 in the afternoon the wagon and driver of the public house may be seen in the court of the mills dispensing hundreds of glasses of beer to the hands, who are allowed 10 minutes for the purpose.

While the custom of living exclusively in cities or villages, prevailing even among the agricultural classes, may originally have arisen in the middle ages from fear of marauders and robbers, the maintenance of that custom in the present day is not improbably due in a measure to this very fact of the German's love of beer *kneipers* and sociability. And here, again, two ill results ensue: First, a loss of time resulting from having to walk, sometimes considerable distances, to and from the fields; and secondly, less perfect health from living in crowded villages instead of in cottages, in the open fields, with fresh and pure air around them. The German "*Bauerndorf*," or "Peasant village," is usually a mere bunch of low, two-story houses, huddled close together, and the narrow, crooked streets invariably decorated on both sides with stacks of ill-smelling manure. For the sake of having company to drink beer with in the evening, the German farm laborer lives amid such unclean and unwholesome surroundings rather than in a farm cottage, without company and beer *kneipers*, but with cleanliness, pure air, and health.

In the early morning the agricultural laborer starts for the fields, sometimes two or three miles distant, armed with a jug of beer, a pound of black bread, and, if in good circumstances, with a piece of bacon or sausage. Wages are low and every member of the family is compelled to work. Young infants are carried to the fields and set under the trees, there to care for themselves while the mothers do their share in producing the families' earnings.

The class of wandering journeymen—*Handwerksbursch*—though not so numerous as formerly, still exists, and members of that class are constantly met with on the highways, strolling from town to town, not so much with the expectation of making anything as of seeing the world and rubbing off their "corners" before settling down. At the age of 19 or 20 they are put into the army, and their abilities for a further period of three years turned in non-productive directions. It will be seen, therefore, that immediately after the close of his apprenticeship, say at the age of 17 or 18, the average mechanic or laborer, if a "*Handwerksbursch*," is little more than a journeyman vagabond, barely supporting himself; and at the close of his two or three years' vagabondage he is pressed into the army, so that it is not until his twenty-fourth or twenty-fifth year that he begins to be able to help his own family, or to marry and care for children.

This lateness in becoming producers, and their inordinate consumption of beer, are, in the opinion of many, two very important causes of the unsatisfactory condition of German labor.

COTTON MILLS—SOUTH WÜRTTEMBERG.

These mills, employing 700 operatives, are pleasantly situated among the hills, in a healthy locality, several miles off the railroad, and twelve miles from any town.

Around a small park, forming a hollow square, are built a number of plain two-story houses, which form the habitations of the 700 hands. Each house has two floors, four

rooms to the floor. Families of five to seven persons may occasionally be found occupying a whole floor; none enjoy the luxury of an entire cottage, and the majority content themselves with two rooms, making four families to the cottage. In front of each cottage is a small plat of ground, planted with vegetables, which are shared in common by the inmates of the cottage, both lower and upper floors. The park or hollow square is planted with shade trees and provided with long tables, on which, in summer, the operatives eat their dinners between the hours of 12 and 1.

Wages and Expenses.—Work begins at 6 a. m. and continues until 7 p. m., with rests during the day amounting to one hour and forty minutes. The number of work hours per week averages from sixty-six to sixty-eight.

Daily wages of spinner (man)	\$0 60
Daily wages of spinner (woman)	37.5 to 40.8

The average wages of weavers is about the same. Boys and girls from 8 to 12 years work but half time.

Boys and girls 8 to 12 years of age, working half time, thirty-three to thirty-four hours per week, earn per week from 54 cents to \$1.08.

A weaver's or spinner's working suit costs \$7.20; Sunday suit for the same, from \$8.64 to \$9.60.

Rent.

Two rooms, per week	\$0 36 to \$0 43
Two rooms, per year	18 12 to 24 96
Floor of three to four rooms, per week	72 to 96
Floor of three to four rooms, per year	37 44 to 49 92

Board.—The mill company boards such of its employes as desire for 60 pfennigs (15 cents) per day, the following food being furnished: Breakfast: Two pieces of rye bread and coffee. Dinner: Soup, meat of the soup and one kind of vegetable, generally either cabbage or potatoes. Supper: Bread (two pieces) and coffee.

At these mills 2,500 pint glasses of beer are drank per day, giving an average for each man, woman, and child of 3½ pints, costing (at 2½ cents per pint) 8½ cents.

A singing class, to which many of the hands belong, meets twice a week in the hall of the public house. Baths and laundry facilities are furnished the employes free of charge.

NO. 60. WEAVER—SOUTH WÜRTEMBERG.

Condition.—Family numbers four: Parents, child, and grandmother. Occupy two rooms on second floor of cottage; parents work in mills; the grandmother looks after the house and child; family dress very plainly; general condition only passable.

Diet.—Breakfast: Bread and coffee. Dinner: Soup and, soup meat, or occasionally sausage; potatoes or cabbage, bread, and beer. Supper: Rye bread and coffee.

Earnings of father	\$180 00
Earnings of mother	122 40
Total	302 40

Cost of Living.

Rent	\$18 12	Beer	\$25 50
Bread	43 80	Clothing	41 76
Meats	29 20	Fuel and light	12 77
Coffee	13 55	Expenditures	311 96
Milk	11 99	Earnings	302 40
Potatoes and cabbage	14 60	Deficit	9 56
Groceries	100 67		

No. 61. WEAVER—SOUTH WÜRTTEMBERG.

Condition.—Family numbers six: Parents, boy aged 13, three children from 5 to 12 years of age. Occupy one-half of lower floor of cottage; rooms are kept clean, but are bare and not well furnished; are too small for size of the family. The father is a good weaver.

Diet.—Breakfast: Bread and coffee. Dinner: Vegetable or meat soup, meat of soup, or occasionally pork, sausage, etc.; potatoes or cabbage, bread and beer. Supper: Bread and coffee, or beer.

Earnings of father	\$187 20
Earnings of mother	112 50
Earnings of boy, aged 13.....	39 00
Earnings of girl, aged 12	31 20
Total	369 90

Cost of Living.

Bread and flour	\$63 88	Clothing	\$41 20
Meats	32 85	Fuel and light	9 60
Coffee and milk	34 67	School tax and incidentals	10 91
Potatoes	21 90		
Cabbage and other vegetables.....	18 25	Expenditures	370 00
Groceries	73 00	Earnings	369 90
Beer	45 62		
Rent	18 12	Deficit	10

No. 62. OPERATIVE IN COTTON MILL—SOUTH WÜRTTEMBERG.

Condition.—Single man, aged about 22. Occupies attic room over public house; quarters small and uninviting; boards with mill company.

Diet.—Breakfast: Two pieces of bread and a bowl of coffee. Dinner: Soup, soup meat, or sometimes pork or sausage; potatoes or cabbage; bread and half quart of beer. Supper: Bread and coffee and often beer.

Earnings	\$171 00
----------------	----------

Cost of Living.

Lodging	\$11 52	Incidentals	\$12 00
Board	54 75		
Beer	34 68	Expenditures	142 23
Clothing	22 08	Earnings	171 00
Light and fuel	7 20	Surplus	28 77

No. 63. ENGINEER IN COTTON MILL—SOUTH WÜRTTEMBERG.

Condition.—Family numbers five: Parents and three children, the oldest just 11. Occupy two rooms on lower floor of cottage. Surroundings clean and neat. The wife evidences some taste for improvement. Girl of 11 goes half time to school and works in mill half time. The other children are too small to do anything. The father drinks rather less than the average; tries to lay by money. The mother is a weaver.

Diet.—Breakfast: Bread and coffee. Dinner: Soup, potatoes, cabbage, sometimes bacon, salt pork, or sausage; on rare occasions veal or beef; bread and beer. Supper: Bread and coffee and cabbage.

Earnings of father	\$199 68
Earnings of mother	124 80
Earnings of girl	37 44
Total	361 92

<i>Cost of Living.</i>			
Bread	\$56 57	Beer	\$18 25
Coffee	16 42	Clothing	48 00
Milk	18 25	School tax and incidentals	14 40
Meats	32 85		
Potatoes, cabbage, beans, etc.	35 04	Expenditures	361 47
Groceries	80 30	Earnings	361 92
Rent	24 96		
Fuel and light	16 43	Surplus	45

No. 64. OPERATIVE IN COTTON MILL—SOUTH WÜRTENBERG.

Condition.—Gray-haired old man, aged 62, without family. Occupies small attic room, very bare and scantily furnished. This man is an Englishman; left his native place, district of Manchester, about twenty-four years ago, when the American civil war was causing depression in England. He has been steadily employed in these mills since 1863. Since 1883, having been in the employ of the mills twenty years and passed his 60th year, he has drawn from the company a stipend, or pension, of 19 pfennigs (about 5 cents) per day. The old man is not very spry, and does not average much more than half time. The mill company boards him for 15 cents per day and gives him his lodging free.

Diet.—Breakfast: Two pieces of bread and bowl of coffee. Dinner: Soup, soup meat, potatoes, bread, and beer. Supper: Bread and coffee.

Earnings	\$93 60
Pension	16 64
Total	110 24

<i>Cost of Living.</i>			
Board	\$54 75	Incidentals	\$6 66
Fuel and light	4 30		
Beer	26 28	Expenditures	110 24
Clothing and shoes	18 25	Earnings	110 24

No. 65. WEAVER—SOUTH WÜRTENBERG.

Condition.—Single woman. Boards with a family occupying three rooms of a cottage; sleeps in room with three other girls.

Earnings	\$124 68
----------------	----------

<i>Cost of Living.</i>			
Board, lodging, lights, and fuel ..	\$67 05	Incidentals	\$8 90
Clothing	16 20		
Beer	17 52	Expenditures	109 67
		Earnings	124 68
		Surplus	15 01

No. 66. SHOEMAKER—DISTRICT OF GÖPPINGEN.

Condition.—Family numbers seven: Parents, five children from 5 to 13 years of age. Occupy two rooms in a large lodging house; poorly furnished; too crowded; condition generally inferior and mean. The wife has a cart and dog, and harnesses herself to the cart alongside of the dog and delivers milk throughout the town. Several of the children go to school. The oldest (boy aged 13) works in shoe factory.

Diet.—Breakfast: Bread and coffee. Dinner: Potatoes or cabbage, bread and beer, occasionally sausage and dumpling. Supper: Bread and coffee. At 4 o'clock a light meal of bread and beer is generally eaten.

Earnings of father	\$156 00
Earnings of mother	112 32
Earnings of boy	43 68
Total	312 00

Cost of Living.

Bread and flour	\$79 08	Light and fuel	\$8 75
Coffee	16 64	Religion and incidentals	18 20
Milk and sugar for coffee	24 96		
Vegetables	37 44	Expenditures	327 65
Groceries	74 88	Earnings	312 00
Rent	28 40		
Clothing	39 30	Deficit	15 65

No. 67. BRICKLAYER—GÜPPINGEN.

Condition.—Family numbers seven: Parents, wife's sister, aged about 16; four children from 1 to 7 years of age. Occupy two small and miserably furnished rooms. Unpleasant locality, poor light, and bad air. The mother and sister work in the fields.

Diet.—Breakfast: Bread and coffee. Dinner: No regular dinner; the father takes lunch to work; the women carry food to the fields; consists usually of rye bread, beer, occasionally bit of sausage. Supper: Rye bread, beer, potatoes, or cabbage in various forms (sauerkraut, etc.), sometimes cheese, egg cakes, or sausage.

Earnings of father	\$168 48
Earnings of mother and sister	190 20
Total	358 68

Cost of Living.

Bread and flour	\$65 70	Fuel and light	\$16 43
Coffee and chicory	18 72	Luxuries (beer and tobacco)	52 56
Milk	16 16	Incidentals	5 73
Potatoes and cabbage	36 40		
Groceries, etc	89 16	Expenditures	368 68
Rent	25 92	Earnings	358 68
Clothing	41 90	Deficit	10 00

No. 68. MASON—DISTRICT OF COLOGNE, PRUSSIA.

Condition.—Family numbers seven: Parents and five children. Occupy two rooms on narrow street. The rooms are bare, but clean. Family seem thrifty and industrious. Father is a good workman; the mother averages about 30 cents a day, sewing in shirt factory.

Diet.—Breakfast: Black bread and coffee. Dinner: Soup, soup meat, bread and beer, and potatoes. At 4 o'clock bread and beer. Supper: Bread, beer or coffee, sometimes potatoes (left over from dinner).

Earnings of father	\$262 08
Earnings of mother	108 00
Total	370 08

Cost of Living.

Bread	\$52 56	Clothing	\$44 79
Vegetables (mostly sauerkraut) ..	49 92	Furniture	7 20
Coffee	15 60	Fuel and light	12 95
Milk	12 48	Incidentals	19 28
Meats	24 96		
Groceries	49 92	Expenditures	352 47
Beer	28 25	Earnings	370 08
Rent	34 56	Surplus	17 61

No. 69. CARPENTER—COLOGNE.

Condition.—Family numbers six: Parents and four children. Occupy two rooms; poor light and bad air; rooms most meagerly furnished. The father is an industrious carpenter, gets fair wages, and condition would be better were his family not so young, and were not the mother in too feeble health to do steady work.

Diet.—Breakfast: Bread and coffee. Dinner: Soup, soup meat, potatoes or cabbage, bread and beer. Occasionally, instead of soup, bacon or sausage. At 4 o'clock, lunch of bread and beer. Supper: Rye bread and beer.

Earnings of the father	\$268 32
Earnings of the mother	31 20
Total	299 52

Cost of Living.

Bread	\$51 10	Rent	\$28 80
Coffee and chicory	13 52	Clothing	36 50
Milk	15 60	Incidentals	20 08
Eggs	6 24		
Meats	17 47	Expenditures	214 06
Potatoes, cabbage, etc.	37 44	Earnings	299 52
Groceries	34 96		
Beer	36 75	Deficit	14 54
Fuel and light	15 60		

No. 70. CARPENTER—HEIDELBERG.

Condition.—Family numbers four: Parents and two small children. Occupy one large room with window looking on street. A screen divides the room in two unequal parts; the larger part is used for living and sleeping; the smaller part is used as kind of store, where the wife sells milk, eggs, and butter. The husband is an average fairly good carpenter; could live a little better than they do, but are trying to save money to emigrate to America.

Diet.—Breakfast: Bread, milk, and coffee. Dinner: Bread, beer, potatoes or other vegetables, egg cakes, and sometimes bacon or sausage; occasionally a dumpling of some sort. Supper: Rye bread, coffee, and milk.

Earnings of father	\$224 64
Income from sale of milk, eggs, etc., and from all other sources	87 90
Total	312 54

EARNINGS AND EXPENSES OF WAGE RECEIVERS IN EUROPE. 451

Cost of Living.

Rent	\$18 72	Clothing	\$42 50
Bread	28 03	Fuel and lights	12 22
Coffee	9 36	Incidentals	18 00
Milk	24 46		
Potatoes	16 08	Expenditures	281 41
Cabbage, onions, etc	12 84	Earnings	312 24
Meats	20 80		
Groceries	54 60	Surplus	30 83
Beer	23 80		

No. 71. BROOM MAKER—VICINITY OF HEIDELBERG.

Condition.—An old man. Lives in lodgings, paying 15 pfennigs (about 3½ cents) per night. In summer he gets up at 3.30 a. m., goes to the woods, cuts twigs which he makes into brooms and sells at 9 pfennigs apiece. By working hard he can make and sell ten brooms per day. This man is so hardened and dulled by drudgery he does not even think of a better state.

Diet.—Breakfast: Bread, coffee, and sugar. Dinner: Beer, bread, potatoes, cheese, etc. Supper: Bread, coffee, and sugar.

Earnings

\$68 64

Cost of Living.

Lodging	\$12 16	Incidentals	\$2 44
Bread	10 95		
Coffee and sugar	7 30	Expenditures	69 25
Beer	7 30	Earnings	68 64
Potatoes and sauerkraut	10 95		
Groceries	10 95	Deficit	61
Clothing	7 20		

No. 72. NAILMAKERS—VICINITY OF FRANKFORT-ON-THE-MAIN.

Condition.—Family numbers eight: Parents, boy aged 15, boy aged 14, and four children from 4 to 12 years of age. Occupy one close, unventilated room in a miserable, ill-smelling house. At night straw mattresses are spread on the floor. General condition is one of abject poverty. Hours of labor vary from thirteen to fourteen and even fifteen per day.

Earnings of father	\$126 88
Earnings of boy of 14	50 04
Earnings of all other members of family	59 28
Total	236 10

Cost of Living.

Bread	\$85 78	Fuel and incidentals	\$9 00
Potatoes and cabbage	31 02		
Coffee and milk	25 51	Expenditures	241 75
Meats	10 95	Earnings	236 10
Groceries and beer	45 36		
Rent	14 88	Deficit	5 65
Clothing	19 25		

No. 73. MINER—SALZBURG, AUSTRIA, NEAR BAVARIAN FRONTIER.

Condition.—Family numbers three: Parents and baby. Live in one room in tenement house, in village not far from salt mines. The father works in six-hour shifts, earning per shift on an average of 50 to 60 kreutzers (20 to 24 cents). The mother works a little on hand loom, weaving, but much of her time she has to attend to the house and baby.

Diet.—Breakfast: Black bread and coffee. Dinner: Black bread and beer, potatoes, or sometimes cabbage. Supper: Black bread and coffee or beer. Meat is seldom or never used by this family.

Earnings of father	\$140 40
Earnings of mother	60 40

Total	200 80
-------------	--------

Cost of Living.

Rent	\$14 40	Light and fuel	\$8 00
Bread	32 85	Incidentals	5 60
Coffee	9 12		
Milk	9 12	Expenditures	204 09
Beer	25 55	Earnings	200 80
Potatoes	18 25		
Groceries	52 40	Deficit	3 29
Clothing	28 80		

SWITZERLAND.

No. 74. MUSIC-BOX MECHANIC—GENEVA.

Condition.—Family numbers five: Parents and three small children. Occupy two rooms, one with a window looking on court. Rooms are plain and clean. The oldest child goes to school. The father and mother both work in music-box factory; father is mechanic of only ordinary skill, but is industrious and thrifty and manages to lay by money. Average earnings per day amount to \$1.

Diet.—Breakfast: Bread, milk, and coffee; sometimes whey or cheese. Dinner: Rye-bread, sausage, bacon or pork, or cheese, potatoes, milk or coffee. Supper: Bread and milk or coffee; occasionally a little honey.

Earnings of father	\$388 00
Earnings of mother	194 80

Total	412 80
-------------	--------

Cost of Living.

Bread	\$59 95	Fuel and lights	\$16 40
Milk	29 21	School tax and books	3 25
Eggs	2 60	Soap and starch	3 18
Coffee	9 36	Incidentals	21 30
Vegetables	33 80		
Cheese	9 88	Expenditures	359 64
Groceries, beer, and wine	98 63	Earnings	412 80
Rent	31 20		
Clothing	40 88	Surplus	53 16

REMARKS.—The manufacture of music-boxes requires workmen of considerable skill. According to statements of managers of music box factories in Switzerland, an apprenticeship of from twelve to fifteen years must be undergone before a "marker," or

man who marks the music on the cylinders, can be considered completely master of his trade. The apprenticeship begins very early, so that if one have the natural ability he may be a good marker at the age of 25 or 30, receiving as high wages as \$2 per day.

Men who put pegs in the holes marked by the marker, and mechanics in other lines requiring no unusual skill, average from 80 cents to \$1.10 per day. Three weeks of each year the workman must perform military service, camping, drilling, etc.; one week more may be counted for holidays and sickness, so that even with the strongest and most healthy, forty-eight weeks per year is a good average.

The habitation of the workman in Geneva consists generally of one or two rooms in a large tenement house. There are stores which sell meat, steaks, ham, etc., ready cooked. Cooked potatoes, peas, and sauerkraut may be purchased in the same way, and many workingmen's families, buying from these stores, do little or no cooking at their homes.

No. 75. MUSIC-BOX "MARKER"—GENEVA.

Condition.—Family numbers seven: Parents and five children. Occupy two rooms and kitchen on third floor of tenement house. Surroundings are close and cramped, but quite up to, if not above, the average. Rooms are comfortably furnished and kept very tidy and clean. The father is a skilled workman; averages from \$1.90 to \$2 per day. The eldest boy, aged 15, works in music-box factory. The mother looks after the household and children; also works a little at home on watches. Four children go to school. The family dress neatly and seem thrifty.

Diet.—Breakfast: Coffee, milk, bread, and butter, sometimes honey. Dinner: Bread and butter, cabbage, potatoes, pork or bacon, or sometimes beef, wine, coffee or milk; occasionally pudding or dried fruit of some sort. Supper: Bread, milk or coffee, sometimes cheese or honey.

Earnings of father	\$547 20
Earnings of son	104 00
Earnings of mother	67 40
Total	718 60

Cost of Living.

Bread	\$83 95	Clothing	\$61 50
Milk	32 85	Light and fuel	22 50
Coffee	14 40	Incidentals	70 00
Vegetables	38 80		
Meats	51 10	Expenditures	533 63
Cheese	9 12	Earnings	718 60
Wine	15 64		
Groceries	85 77	Surplus	184 97
Rent	48 00		

No. 76. SKILLED MECHANIC (MUSIC-BOX FACTORY)—GENEVA.

Condition.—Family numbers five: Parents and three children. Occupy three rooms in tenement house. The father is a first-rate mechanic; arranges the delicate mechanism of music boxes (the springs for turning cylinders, the accompaniments, as drum, flute, bells, etc.). Earns on an average \$2 per day. Children go to school. The mother works in factory part time. Family dress and live better than the average.

Diet.—Breakfast: Bread and butter, cheese, coffee, and milk. Dinner: Soup, soup meat, sometimes beef or mutton, ham, bacon or pork, potatoes, bread, and wine; on

Sundays dessert of pudding and fruit. Supper: Bread and butter, coffee or milk; sometimes dried fruit, cheese, potatoes left over from dinner, etc.

Earnings of father	\$576 00
Earnings of mother	124 80
Total	700 80

Cost of Living.

Bread and flour	\$74 82	Light and fuel	\$19 75
Milk	25 55	Rent	46 80
Coffee	14 60	School fees	7 25
Vegetables	36 50	Incidentals	36 10
Meats	43 80		
Cheese	10 95	Expenditures	492 07
Wine	22 40	Earnings	700 80
Groceries	76 65		
Clothing	76 80	Surplus	206 73

No. 77. ORDINARY MECHANIC (MUSIC-BOX FACTORY)—GENEVA.

Condition.—Family numbers six: Parents and four children, the oldest 8 years. Occupy one room and small kitchen in tenement house; not well furnished. Family dress and live only passably. Parents both work in music-box factory.

Diet.—Breakfast: Bread, coffee, and milk. Dinner: Bread, cheese, potatoes, sometimes salt pork or sausage, whey, wine. Supper: Bread, coffee—occasionally cheese, whey, or potatoes.

Earnings of father	\$192 40
Earnings of mother	156 00
Total	348 40

Cost of Living.

Bread	\$67 52	Fuel and lights	\$12 50
Milk	23 72	School and other taxes	6 25
Coffee	10 95	Incidentals	33 40
Vegetables	29 20		
Meats and cheese	32 85	Expenditures	366 43
Wine	12 77	Earnings	348 40
Groceries	66 57		
Rent	31 20	Deficit	18 03
Clothing	39 50		

No. 78. WATCHMAKER—GENEVA.

Condition.—Single man, aged about 30. Boards in tenement house. The room has window looking on street, but is low, dingy, and uninviting. Man is good ordinary mechanic, averages about 80 cents per working day.

Diet.—Breakfast: Bread and coffee. Dinner: Soup, soup meat or sausage, potatoes, bread and butter, wine, beer, or coffee. Supper: Bread, cheese, milk, or coffee.

Earnings	\$230 40
----------------	----------

Cost of Living.

Board	\$109 20	Expenditures	\$194 85
Wine, spirits, and tobacco	31 20	Earnings	230 40
Clothing	29 75		
Incidentals, etc.	24 70	Surplus	35 55

NO. 79. AGRICULTURAL LABORER—DISTRICT BETWEEN VEYAY AND MARTIGNY.

Condition.—Family numbers eight: Parents, and six children from 3 to 15 years of age. Occupy small chalet or cottage of four rooms. Surroundings are clean and comfortable, although the house is rather small for size of family. Have three cows and a small flock of sheep. Girl of 15 watches the cows and knits socks for self and brothers. A small garden is planted with a few vegetables, and flax and hemp. The mother spins and weaves, makes cheeses, and performs general household work. The father cultivates farm, raising rye and oats and some tobacco.

Diet.—Breakfast: Rye bread, milk, honey. Dinner: Rye bread, potatoes, milk, whey, cheese, sometimes bacon or salt pork. Supper: Rye bread, milk or coffee; occasionally eggs or cheese.

REMARKS.—The Swiss peasant frequently owns the hut and land on which he lives; while the cow, farming utensils, etc., are often only rented. The peasant is economical and temperate in most respects; his principal weakness is love of wine, beer, and tobacco, especially the latter. In the long winter evenings, when sitting around the fireside, carving in wood, or performing other indoor work, he is seldom separated from his pipe; and when watching his cows, he knits and smokes at the same time. His bill of fare rarely embraces more than rye bread, potatoes, whey, and cheese.

They make their own clothes. Around each chalet, or cottage, is a small patch of flax and hemp. They have a few sheep, and in the winter, when not carving, they spin flax, weave cloth from the wool of their sheep, and, in short, are quite independent of outside markets. In the fall, merchants from Berne and Geneva go into the mountain districts and ride from one house to another buying cheeses, which are ultimately exported to various parts of the world. Thus, at the beginning of winter the Swiss peasant has a small sum of ready money in his box, and when the deep snows and mountain storms keep him at home, he and his wife and children sit around the fire, carve wood, spin flax and wool, and do other similar indoor work.

They live simply and frugally and work very hard, but they seem to have all the necessities of life, and with the purity of air and independence which is theirs, the Swiss peasant may, on the whole, be considered to be in a superior condition to the Italian, German, or other European peasant. It is impossible to estimate in dollars and cents the earnings of this class of labor. They keep no account of the amount of the produce of the farm, and this much only can be stated with certainty: that the rye bread, milk, whey, cheese, potatoes, and other vegetables, which form their chief diet, are entirely, or almost entirely, produced by the farmer at home; that the greater part of the clothing is home spun and home woven; and that the sale of cheeses and wood carvings balances and sometimes a little more than balances the expenditures for taxes, rent, school fees, and general incidentals.

These remarks should be understood as applying mainly to that portion of the agricultural class either slightly or considerably removed from towns and railroads.

NO 80. ITINERANT COBBLER.

Condition.—A Single man. He goes about from one farm house to another, takes the old cowhides that have been laid aside waiting his arrival and converts them into rough shoes and leggings, for which work he gets his lodgings, meals, and about 15 cents per day in money.

Earnings, board and lodging estimated at 15 cents per day, \$1.05 per week...	\$54 60
Two hundred and ninety days, at 15 cents.....	42 50

Total.....	97 10
------------	-------

<i>Cost of Living.</i>			
Food.....	\$54 60	Incidentals.....	\$5 34
Rent and lodging gratis.....			
Clothing.....	17 26	Expenditures.....	97 10
Tobacco and other luxuries.....	19 90	Earnings.....	97 10

No. 81. FEMALE CIGARETTE MAKERS—ZÜRICH.

Condition.—Family consists of two, an old maid and her mother. Occupy one room on fourth floor of tenement house; room is clean and neat; plainly though comfortably furnished; both mother and daughter work at home making cigarettes; earn together on an average 3½ francs, or 70 cents, per day of twelve hours.

Diet.—Breakfast: Bread and coffee; occasionally cheese or eggs. Dinner: Soup, soup meat, potatoes, bread, and beer or coffee. Supper: Bread and butter, coffee, or milk; sometimes potatoes warmed over from dinner.

Earnings of mother and daughter.....\$218 40

<i>Cost of Living.</i>			
Bread and flour.....	\$27 37	Clothing.....	\$29 60
Milk.....	9 12	Fuel and light.....	8 12
Coffee.....	7 03	Incidentals.....	13 29
Vegetables.....	10 95		
Cheese.....	9 12	Expenditures.....	212 27
Meats.....	16 42	Earnings.....	218 40
Wine, beer, etc.....	14 60		
Groceries.....	47 45	Surplus.....	6 13
Rent.....	19 20		

No. 82. OPERATIVES IN SILK-RIBBON MANUFACTORY—ZÜRICH.

Condition.—Family numbers eight: Parents, husband's mother, five children, the oldest 14 years of age. Occupy three rooms in tenement house, not very pleasantly situated. Two rooms are used for sleeping; the third room serves as kitchen, dining and living room. Parents and eldest daughter work in silk mills. The husband's mother cooks, washes, and attends to the children.

Diet.—Breakfast: Bread, coffee, and milk. Dinner: Soup, soup meat, or occasionally sausage, potatoes or cabbage, bread and beer, sometimes wine. Supper: Bread, coffee, occasionally cheese, or egg cakes.

Earnings of father.....	\$208 00
Earnings of mother.....	145 60
Earnings of girl, aged 14.....	62 30
Total.....	415 90

<i>Cost of Living.</i>			
Bread and flour.....	\$91 25	Clothing.....	\$47 60
Milk.....	29 29	Light and fuel.....	13 00
Coffee.....	16 02	Incidentals.....	15 25
Bacon.....	3 30		
Meats and cheese.....	24 51	Expenditures.....	423 13
Vegetables.....	26 66	Earnings.....	415 90
Groceries.....	76 65		
Beer, wine, and tobacco.....	48 40	Deficit.....	7 23
Rent.....	31 20		

APPENDIX C.

SYNOPSIS OF LABOR LEGISLATION IN THE UNITED STATES.

CALIFORNIA.

Title 15, chapter 1, section 651, paragraph 13651, Code of 1876, provides that persons employing minor children as wards or apprentices shall not work them over eight hours a day except in vinicultural or horticultural pursuits.

Title 7, chapter 10, section and paragraph 3244, provides that eight hours are a legal day's work in the absence of a special contract. The next section forbids such special contract in all work done for the state.

By Acts of March 13, 1872 (Acts of 1871-72, p. 413), and March 27, 1874 (Acts of 1873-74, p. 726), constituting paragraphs 15638 to 15642, Code of 1876, laws were passed for the protection of the health and lives of minors similar in detail to those of other states herein more fully set forth.

COLORADO.

Employers of females in manufacturing, mechanical, or mercantile establishments must provide suitable seats for their use when not engaged in the active duties of their employment, under a penalty of from \$10 to \$30 for each offense. (Act of April 2, 1885; Laws of 1885, p. 297.)

Owners or agents of coal mines employing ten or more men must make map or plan showing workings of mine, not over 100 feet to the inch, and showing also the general inclination of the strata and the boundary lines, map to be kept at mine office in the county where the mine is situated, and a copy must be filed with the mine inspector. Map must be kept up every three months, and by January 10 in each year the workings of the mine up to the close of the preceding December, so that the inspector can mark the changes on his map. If owner or agent neglect to make map or correction, or inspector believe either to be incorrect, he may have work done at owner's expense, but at his own, if owner's map or correction be accurate. Six months after passage of act, unlawful to employ in mines where 15,000 square yards have been excavated more than fifteen workers, except in opening shafts or outlets, unless there are two separate outlets to every seam separated by natural strata, not less than 100 feet in breadth, by which distinct means of ingress and egress are always available, air shafts in which there are ladder ways being considered as escape shafts. Both outlets need not belong to the same mine, and the second need not be made until 15,000 square yards are excavated.

To all other mines worked by shafts, slopes, or drifts there must be two openings twelve months after 15,000 square yards are excavated, but two need not be provided where there are not more than fifteen persons at work at once. Where owner has not sufficient land for second outlet he may condemn adjoining land by direction of the proper court. Communication with contiguous mines must be constructed in connection with every vein or stratum of coal worked. When human voice cannot be heard throughout mine, owner must maintain metal tube from top to bottom of slope or shaft, or a telephone, so that conversation may be had all over the mine. The top of the shaft must have an approved safety gate and catch, and a cover overhead on every carriage for persons, and sufficient flanges or horns on the sides of every drum of machines, as well as adequate brakes. The main

link of the swivel must be of wire rope, of the best quality of iron, and tested by weights satisfactory to the inspector. There must be bridle chains to the main link for the cross-pieces of the carriage. No single chain can be used for the hoisting or lowering of persons, and not more than five persons for each ton of capacity of the machine can be hoisted or lowered.

In mines operated by shaft, slope, or drift there must be ventilation of not less than 100 cubic feet, and such additional number of cubic feet as may be ordered by the mine inspector, per minute per person employed, and also an amount of ventilation of not less than 500 cubic feet per minute for each horse or mule used, which shall be circulated throughout the mine so as to drive away or render harmless noxious gases from working-places. Airways are to be driven, when the mine inspector orders, and all except those made last near working places must be closed up air-tight so that air currents may sweep into the interior of the mine. Mines must be provided with artificial means of producing ventilation by fanning, suction fans, exhaust steam furnaces, and other appliances so as to keep an abundant supply of air. If furnace be used, the upcast must be lined with incombustible material. Mines generating firedamp must be kept free from combustible material, and their working places must be examined every morning by a competent person with a safety lamp before miners are allowed to enter. Doors must be so hung that they will not stay open.

There must be employed a "mining boss," whose duty is to exercise supervision over the interior of the mine; to see that the miners advance their excavations, that all loose coal, slate, and rock are made secure, and that for the purpose a sufficient amount of timber of suitable length and size is placed in the working places of the mine; to measure ventilation once a week at the inlet and outlet and at or near faces of all entries; results to be noted on blanks furnished by the mine inspector, to be sent him once a month, and copies to be filed in mine office subject to the inspection of the miners. Competent engineers must be employed. No person shall ride on loaded wagon in any shaft or slope.

No young person under 12 years of age, or woman or girl of any age shall be permitted to enter any coal mine to work therein, nor any minor under the age of 16 years, unless he can read and write. Safety lamps in mines must belong to the immediate proprietor. All boilers must be provided with proper steam and water gauges and safety valves. All underground self-acting planes or gangways on which cars or persons are moved must have proper wires signalling between the ends of the planes and the stopping places. There must be sufficient places of refuge at the sides not more than fifty feet apart; also a travelling way cut in the side of the hoisting shaft at the bottom sufficiently high and wide for persons to pass the shaft without going over or under the cage or hoisting apparatus.

If loss of life or personal injury occur by explosion or accident, the owner or agent must notify the mine inspector and, if death has happened, the coroner of the county. The mine inspector must visit the mine, render all necessary assistance to insure safety for the men, and file coroner's testimony and such other as he may see fit to take, as a record in his office.

Miners and land owners shall have at all proper times access to and examination of the scales, machinery, and apparatus, to determine the quantity of coal mined and to test the machinery, and they may designate competent persons to have access to the mines and machinery at all proper times, and to see the weights and measures of all coal mined and the accounts as kept. There shall be only one representative for the owners and but two for the miners, the latter being appointed once a month, to inspect mines and machinery and measure ventilating current. Owners may accompany miners or their agents, and they must afford every facility for investigation, while the miners must not interrupt ordinary work. Miners or other workmen wilfully injuring shafts, lamps, instruments, air courses, or brattices, or obstructing or throwing open airways, or opening and not closing doors, or carrying matches or lighted pipes where safety lamps are used, or handling or disturbing machinery, or entering any place against caution, or

willfully neglecting or refusing to securely prop roof of working place, or disobeying any proper order, or doing any other act endangering the lives or health of persons or the security of mines or machinery, are guilty of a misdemeanor punishable by fine of from \$25 to \$200, or by imprisonment of from thirty days to one year in the county jail.

Upon application to the proper court, owners or agents of mines who employ more than twelve miners underground during each twenty-four hours may be enjoined from work until the statute is complied with, and this remedy is cumulative.

The owner, agent, lessee, or operator of mines is liable in direct damages to person on account of a violation of the statute, and in case of death to the injured party the widow or lineal heirs may equally as well bring suit. This act does not apply to mines employing not more than twelve persons, but upon application of owner or miners, or when mine inspector deems it necessary, the latter may make suitable regulations for such mines. Four months after passage of act, judges of district courts are to appoint four reputable coal miners and the governor one practical engineer, to constitute a board of examiners to inquire into the character and qualifications of candidates for mine inspector. The first meeting of the board was at Denver, July 20, 1883, when they certified to the governor all candidates approved by four of their number. Such candidates must be citizens of the United States, of temperate habits, 30 years of age, one year's experience in Colorado coal mines, five years' experience in United States mines, and a practical knowledge of mining engineering and the different systems of working and ventilating mines, and the nature and properties of noxious and poisonous gases, especially firedamp. From the number certified the governor selects a mine inspector for four years, at a salary of \$2,000 a year, who must reside in the state and keep his office at the capital, and who may be reappointed. A vacancy must be filled from the other names sent up, and the board of examiners, themselves newly appointed by the district judges, keep the lists of candidates full.

The inspector qualifies by taking oath of office and giving a \$5,000 bond, but no person can be an inspector who is a manager or agent of a mine or a mining engineer for any company, or interested in operating any mine. The inspector shall devote his whole time to his duties, shall examine once a quarter mines in which more than twenty men work, to see that the statute is carried out, and he may visit any coal mine and its works and machinery at all reasonable times, day or night, but not to unnecessarily obstruct or impede its working. The owner must furnish necessary means for inspection, of which the inspector makes an office record, showing the number of mines, their development, number of persons employed, the extent to which the law is obeyed, the progress in the improvements sought to be effected by the law, the number of accidents and deaths from injuries, the output of coal and development made annually, with all facts concerning the production and transportation of coal to market, etc., the record to be filed on or before the first Monday in November preceding the biennial meeting of the legislature, in the office of the secretary of state, who must include it in his biennial report.

The owner or agent of a mine working ten or more men close to an abandoned mine containing inflammable gas or firedamp must bore holes twelve feet in advance of the coal face of the working places, and, when directed by the mine inspector, on both sides. The mining boss or other competent person must examine mine daily and make a record in a book kept at the mine. The fire boss must make a daily record of defects in ventilating apparatus and any standing gas, designating entry and room in which gas is found, which record is open at all times for examination by the inspector and miners.

Persons violating act are guilty of a misdemeanor, punishable by fine from \$100 to \$500. (Chapter 16, General Statutes: act of February 24, 1883, Acts of 1883, p. 106; act of April 8, 1885, Acts of 1885, p. 134.)

Chapter 15, section 12, General Statutes of 1877, provided that children under 14 years of age should not work in coal mines. Owners, etc., violating statute were liable to a fine of from \$100 to \$500.

CONNECTICUT.

No child under 14 years of age who has resided in the United States nine months can be employed at labor unless he has attended a public or other day school in which instruction is regularly given in the branches of education required in public schools during twelve weeks or sixty full school days of the twelve months next preceding the month in which the child is employed, nor unless six weeks' attendance has been consecutive. Any person employing such a child contrary to law is liable to a fine not exceeding \$60.

Parent or guardian of child under 14 years of age must furnish employer with a certificate signed by teacher, school visitor, or committee of school, showing lawful school attendance of minor. Employer must require certificate, keep it while the child is employed, and show it during business hours to school visitor or secretary or agent of the state board of education, and the certificate is evidence. Parent or controller of child falsifying as to age or residence in the United States, or instructing child to make false statements, may be fined as much as \$7 or imprisoned as many as thirty days. (Laws of 1882, chapter 80, p. 162.)

Every story above the second story, not including the basement, in any workshop, manufactory, hotel, or building occupied on such story as assembly or lodge room by any literary, benevolent, or other society, or boarding house accommodating over twelve lodgers, or tenement house arranged for or occupied by more than five families, must be provided, within six months, with more than one way of egress by stairways on the inside or fire escapes on the outside of the building, and such stairways and fire escapes shall be kept free from obstruction and accessible from each room in said story. It is the duty of first selectman of town, or fire marshal of city, or warden of borough, in which such buildings are situated, to examine same and give certificates if they be lawfully equipped. Violation of statute by owner subjects him to \$50 fine. (Laws of 1883, chapter 120, p. 305; act of May 3, 1883, repealing chapter 72, Laws of 1881, p. 39.)

Parent or controller of child between 8 and 16 years of age, of good physical and mental condition, must cause child to attend school, while school is in session, in the district of its residence. This does not apply to children under 14 who have attended school twelve weeks of the preceding twelve months, according to chapter 80, Acts of 1882, and children over 14 not subject when properly employed at labor at home or elsewhere. (Act of April 16, 1885, chapter 90, Laws of 1885, p. 456.)

Persons or corporations employing laborers and requiring from them, under penalty of a forfeiture of a part of the wages earned by them, a notice of intention to leave such employment, are liable to the payment of a like forfeiture, to be recovered in an action on this statute, if employes are discharged without similar notice, except for incapacity or misconduct, or in case of a general suspension of labor by the employer. (Act of April 10, 1885, chapter 72, Laws of 1885, p. 445.)

No person in charge of any mechanical or manufacturing business or establishment can employ or suffer to be employed any minor under 15 years of age more than ten hours a day or fifty-eight hours a week. Violation subjects offender to a forfeit of \$50, half to complainant and half to the town. Parent or guardian compelling or permitting employment liable to a fine of \$10. Eight hours' work in any day lawful day's labor, unless otherwise agreed. (Title 14, chapter 6, sections 9 and 10, General Statutes of 1875, p. 194, enacted in 1867.)

By General Statutes of 1875, p. 127, it is provided that school visitors of towns must examine, once or more every year, the condition of children employed in factories to see if the law relating to such employment is complied with, and report violations to grand jurors.

DAKOTA.

Every person who, by force, threats, or intimidation, prevents or attempts to prevent any employé from continuing in employment or from accepting employment, or induces employé to quit work or to return any work before it is finished, is guilty of a misdemeanor, punishable by a fine up to \$500 or imprisonment up to one year, or both. Every person intimidating employers and preventing them from hiring any person or compelling such hiring, or forcing them to alter their ways of doing business or to increase or decrease their force, is guilty of a misdemeanor. Any two or more associating together, who enter on mining property or, being near enough to be heard, use threats, gestures, etc., to intimidate workers or those who may desire to work, are guilty of a misdemeanor and subject to imprisonment from thirty days to six months and to a fine not more than \$250; the fine if not paid to be discharged by imprisonment, each day to count for \$2.50. (Civil Code of 1883, including acts of 1885, sections 733, 734, and 735, pp. 1280 and 1261.)

Every owner, stockholder, overseer, employer, clerk, or foreman of any manufactory, workshop, or other place used for mechanical or manufacturing purposes who, having control, shall compel any woman or any child under 18 years of age, or permit any child under 14, to labor in any day exceeding ten hours is guilty of a misdemeanor and subject to a fine of from \$10 to \$100. (Ibid, section 739, p. 1261.)

DELAWARE.

Owners of buildings, now or hereafter erected, more than two stories in height, used in third or higher story, in whole or part, as factory, workshop, or tenement house, must have sufficient fire escapes from third story and those above, by stairways or ladders outside of building, or stairways in separate towers or structures, furnished with safe and easy communication with such buildings. Act not to apply to buildings already supplied with two or more independent stairways from highest to lowest story, if not nearer than sixty feet.

Duty of chief engineer of city, town, or borough, or, if no such officer, mayor or chief officer, to examine fire escapes as to suitability and sufficiency, whether quality, location, or number, and give owner a certificate good for two years.

Owner, whether person or corporation, failing to comply punishable by fine up to \$200. (Chapter 546, title 20, Laws of 1881, p. 713.)

GEORGIA.

Section 1885, Code of 1882, being act of 1853-54, p. 37, provides that hours of labor shall be from sunrise to sunset for persons under 21 in all manufacturing establishments and machine shops. The next section abolishes corporal punishment and makes owners of establishments violating liable in an action.

ILLINOIS.

All buildings of four or more stories, except exclusively private houses, must have one or more metallic ladders or stair fire escapes from near the ground to the uppermost story, with platforms near windows, the number, location, and material subject to approval of board of supervisors or board of county commissioners. All buildings over two stories used for manufacturing purposes must have at least one escape for each fifty people having working accommodations above the second story. After six months from passage of act, and upon thirty days' notice, owners must have buildings fitted up in accordance with act or be liable to fine of from \$25 to \$200, and \$50 for each week's neglect. Buildings erected in the future must have necessary fire escapes before completion. (Act of June 29, 1885, chapter 55a, Hurd's Revised Statutes, 1885, p. 644.)

The owner, agent, or operator of coal mine must furnish upon railroad track adjoining mine a "track scale," upon which shall be weighed all coal hoisted before or at the time of loading on cars or wagons. If output does not justify purchase of "track scale," or it cannot be used, a platform scale may be substituted. A record must be kept at the owner's expense of all coal weighed, open to the inspection of miners, operators, carriers, land owners, adjacent land owners, and all others interested. The person weighing must make affidavit of true weights, a false affidavit being perjury. A record must be filed with the inspector of the district.

Miners may furnish at their own expense a check weighman to balance scales and see that coal is properly weighed, who must keep a correct account and shall have access to the beam box while the coal is being weighed. He must be a citizen of Illinois and of the county in which the mine is situated, and must make affidavit of true weights, etc., falsity therein being perjury. Owner, etc., of mine must give him a permit, not transferable, to remain in weigh room while coal is being weighed. The first violation of this statute is punishable by fine up to \$50, the second by fine up to \$200, the third by fine up to \$500 or imprisonment up to six months, but the statute applies only to mines shipping coal by railroad or water. Mining contracts dispensing with this mode of weighing coal are void. (Acts of June 14, 1883, Laws of 1883, p. 113, and June 29, 1885, Laws of 1885, p. 221; Hurd's Revised Statutes of 1885, p. 827.)

An act providing for the health and safety of coal miners, approved May 28, 1879, slightly amended by acts of 1883 and 1885, above quoted, provides for maps, escape-ment shafts, ventilation, safety lamps, bore holes, signals, hoistways, examination of boilers, etc. First violation punishable by fine from \$50 to \$200; second, from \$100 to \$500. No person under 14 or female of any age permitted to work in any mine. The state is divided into five inspection districts. Upon the recommendation of a board of examiners, appointed by the bureau of labor statistics, consisting of two practical coal miners, two coal operators, and one mining engineer, the governor shall appoint an inspector of coal mines for each district for two years, who must have a practical mining experience of ten years, be 30 years old, and not interested in any mine. He shall give a \$5,000 bond, have a salary of \$1,800 a year, must make a personal examination of each mine in his district, and make an annual report to the bureau of labor statistics. Upon complaint of three coal operators or ten coal miners, the bureau of labor statistics may, on fifteen days' notice to him, investigate each inspector, and, if advisable, remove him. Board of examiners must make additional recommendations whenever notified by bureau. Miners must use copper needles in preparing blasts, and not less than nine inches of copper on the iron bars used for tamping blasts of powder. Engine and boiler houses to be roofed and sided with fire-proof material in mines hoisting coal by steam power, where no other means of ingress and egress are provided. (Hurd's Revised Statutes of 1885, p. 820.)

Eight hours a legal day's labor in all mechanical employments, except on farms and when otherwise agreed; does not apply to service by day, week, or month, or prevent contracts for longer hours. (Act of March 5, 1867; Hurd's Revised Statutes, chapter 48, p. 592.)

INDIANA.

Owner, agent, overseer, or foreman of any cotton or woollen factory employing or permitting to be employed any person, male or female, under the age of 18 years in such factory for a longer period than ten hours in any day, shall be fined from \$50 to \$100. (Revised Statutes of 1881, section 2125.)

Whoever, by threats, intimidation, or force, prevents or seeks to prevent any person from doing work for or furnishing materials to any other person, firm, or corporation engaged in any lawful business shall be liable to a fine of from \$20 to \$100, to which may be added imprisonment in the county jail from ten days to six months. Whoever unlawfully, by threats, intimidation, or force, prevents or attempts to prevent any railroad

company or its agents, servants, and employes from moving, running, and operating locomotives, cars, and trains of such railroad, or from transporting or carrying passengers and freight on its line of road, or attempts to or does prevent any express company, common carrier, or person engaged in transporting or carrying passengers or freight for hire, from so transporting or carrying either passengers or freight, shall be fined from \$50 to \$1,000, to which may be added imprisonment in the state's prison from two to twenty-one years, and such offender shall be disfranchised and rendered incapable of holding any office of trust or profit for any determinate period. (Ibid, sections 2126 and 2127.)

At the request of a mine owner, miner, or other person interested in a coal mine, the mine inspector must have map made on a scale not less than one inch to 100 feet, to be certified to by him and kept in his office. The governor, with the advice of the senate, must appoint a mine inspector for two years, who must be a resident and practical miner, not pecuniarily interested in any mine in Indiana, and shall take oath of office and give bond in the sum of \$1,000. He shall have his office in the central part of the mining district and receive a salary of \$1,500 a year. This act is not to apply to mines employing less than ten men. The inspector must examine scales, and, if they be incorrect, notify owner or agent. The user of incorrect scales, after notice, is liable to a fine of from \$10 to \$100 for each day's use. (Ibid, sections 5460, 5473, and 5474, act of March 5, 1881.)

No boy under 14 years of age can be employed in any mine. Violation punishable by fine up to \$500, but act not to apply to mines employing less than ten men. (Ibid, section 5477.)

Mine inspector must examine all scales in coal mines, which must be tested by sealed weights furnished by the state auditor. Using false scales is punishable by fine of from \$10 to \$100 a day. When coal mining is paid by weight, miners have a right to a check weighman in the weigh office, who shall inspect the weighing and be selected and paid by them. (Ibid, section 6794, amending section 5480; act of March 3, 1883, chapter 59, Laws of 1883, p. 1692.)

Ropes used for hoisting and lowering in coal mines must be of wire, and shall be examined every morning before the miners descend. When gas is known to exist a competent fire boss must be at the bottom of every mine each day to inform each man of the state of his room or entry, and every such mine must be examined every morning by a competent person with a safety lamp before miners are allowed to enter. (Ibid, section 6793.)

Companies, corporations, or associations shall be required, in the absence of a written contract to the contrary, to settle with and pay their employes, engaged in mechanical or manual labor, in money at least once a month. Employes, in case of refusal so to pay, may demand such payment from their employers, who, if they then neglect to pay for thirty days thereafter, are liable in a suit by employes for the amount due, reasonable attorney's fees, and a penalty of \$1 a day for each succeeding day: *Provided*, That such penalty shall not exceed twice the amount due and withheld. (Laws of 1885, chapter 21, p. 36.)

Owners, agents, or operators of coal mines not to allow more than ten persons to work in any mine, shaft, slope, or drift, in every twenty-four hours, after 5,000 square yards have been excavated, until a second outlet is made, which must be separated from hoisting shaft by at least 100 feet of natural strata and be accessible to employes at all times.

Stairways, at an angle of not more than 65°, must be provided for every shaft used as a manway, with landings at convenient distances, and guard rails from top to bottom.

Gangways to outlet shall be at least four feet high and three wide, and shall be kept as free from water as average hauling roads. Water from the surface or from strata must be so conducted as not to wet persons on stairway or shaft.

Breaks through, or airways, shall be made in every room at least every seventy-five feet, and all except those made near working faces shall be made air-tight by brattice,

trap doors, or otherwise. Doors used in assisting ventilation must be so adjusted as to close themselves and not stand open, and no person must prop them open.

Air courses must be driven adjoining entries and as nearly parallel thereto as possible, not to exceed such width as will render them safe, with a sufficient pillar of coal between them to secure the roof.

Owners, agents, or operators must keep a sufficient supply of timber at mines and deliver props and timbers of proper lengths to the rooms of the workmen when needed.

Approved safety catches shall be attached to every cage used for carrying persons.

Miners' bosses must visit their miners in their working places at least once every day, where between ten and fifty are employed, and once in two days where more than fifty.

Violations of act punishable by fine of from \$10 to \$500. (Laws of 1885, chapter 34, p. 65.)

Children under 12 years of age are not to be employed in the business of manufacturing iron, steel, nails, metals, machinery, or tobacco. Children under 12 years of age must not be employed over eight hours a day by those permitted by law to employ them. Violation is punishable by fine of from \$10 to \$100. (Laws of 1885, chapter 88, p. 219.)

No railroad company shall exact from its employees without their written consent in each case any portion of their wages for any hospital, reading room, library, gymnasium, or restaurant.

Officer of company violating act punishable by fine of from \$100 to \$500. (Laws of 1885, chapter 31, p. 123.)

IOWA.

This state has a law relative to mine inspections and the appointment and duties of a mine inspector similar to that in force in Colorado. The mine inspector has a salary of \$1,700 annually, with not to exceed \$500 annually for disbursements. He begins his term on April 1 of every odd-numbered year, and his regular reports must be filed biennially on or before August 15 in years preceding a session of the legislature. There must be in coal mines, to every seam of coal worked, two outlets separated by natural strata of not less than 100 feet in breadth. In no case shall a furnace shaft be used as an escape-shaft. All escape-shafts must have stairs at an angle of not more than 60°. No boy under 12 years of age is allowed to work, and where there is any doubt as to his age, parents or guardians must furnish affidavit. Persons violating act after notice from inspector are liable to a fine up to \$500 or imprisonment up to six months. The act applies to all mines. (Act of March 18, 1884, chapter 21, Laws of 1884, p. 23; repealing act of March 30, 1880, chapter 202, Laws of 1880, p. 196).

KANSAS.

This state has a law relative to mine inspections and the appointment and duties of a mine inspector similar to that in force in Colorado. Map of mine must be revised by July 10 of each year. When a mine is abandoned or worked out the map must be corrected and a report thereof made to the inspector. The two openings must be separated by natural strata of not less than eighty feet in breadth if mine be worked by shaft or slope, and not less than fifty feet if by drift. If coal mine exceeds 100 feet in depth six months additional time shall be allowed for completing the second opening for each additional 100 feet of depth or fractional part thereof. Number of men employed in any mine limited to twenty-five until the second opening is perfected. All shafts must be cased-lined or otherwise made secure, and all escapement shafts must be provided with ladders securely fastened so as to bear at least ten men, and where ladders cannot be conveniently used, other safe means for hoisting miners must be provided independent of the regular hoisting shaft or its machinery. Man holes on underground planes must not be

over thirty feet apart when same are worked by machinery, and where coal is drawn by animals, or persons travel, not more than sixty feet apart.

Governor, with advice of council, appoints inspector, who must be a citizen and resident of Kansas for two years, 30 years old, at least five years in or about coal mines, with theoretical and practical knowledge; must have office near mining districts, and not be interested in operating mines; holds office for two years at a salary of \$2,000 a year, with a bond for \$3,000. He must examine each mine at least twice a year. Coal operators must make quarterly statements of coal mined and the number of miners and other persons employed, which are to be embodied in the annual report, on February 1 of each year, of the inspector to the governor. Violation of statute by owner, agent, lessee, or operator is a misdemeanor punishable by fine of from \$100 to \$1,000, or imprisonment up to twelve months, or both.

No person under 12 years of age shall be employed, and none between 12 and 16 unless the latter can read and write and show by teacher's certificate school attendance at least three months in the previous year. (Act of February 28, 1883, chapter 117, Laws of 1883, p. 172, as amended by acts of 1885, chapter 143, p. 228.)

MAINE.

Every building in which trade, manufacture, or business is carried on requiring workmen above the first story, must have fire-escapes, outside stairs, or ladders from each story, or gallery above the ground, easily accessible and to be satisfactory to the board of fire engineers, if there be an organized fire department; otherwise, to town officers. Engineers and officers may specify alterations, additions, or repairs, giving sixty days' written notice to owners, who, failing to comply, forfeit from \$5 to \$50 a day for each day's neglect, and they may be punished for maintaining a common nuisance, upon no other proof than the occupancy of building. The use of such building for public purposes may be forbidden by officers until compliance with order. Owner using or letting property after notice and before compliance therewith, forfeits from \$20 to \$50 for each offense. Officers, upon compliance, must give certificate good for one year, and occupant of building refusing to pay \$2 for a certificate or to post it up in the building, forfeits \$10 for each week's delay. Town officers neglecting their duty forfeit \$50. Town may proceed civilly or criminally for violations. (Chapter 121, Acts of 1883, being chapter 26, Revised Statutes, p. 297.)

By chapter 82, section 43, p. 750, Revised Statutes, ten hours of actual labor is a day's work, except in monthly labor, or where a longer time is stipulated, or in agricultural employment. By chapter 48, sections 13, 14, and 15, p. 439, Revised Statutes, being acts of 1880, chapter 221, no child can be employed in a cotton or woollen factory without attending a public or private school for four months during the year preceding employment if under 12 years of age, and for three months if between 12 and 15, the necessary evidence of such schooling being a sworn teacher's certificate filed with the employer. Violation on part of employer subjects him to a fine of \$100, half to informer and half to town school fund. No one under 16 years of age shall be employed over ten hours a day. Violation subjects employer to fine of \$100, half to employé and half to the town.

MARYLAND.

All employers of females in Baltimore city, in mercantile or manufacturing business, shall provide seats for employées when not employed, under penalty of \$150. (Chapter 35, Acts of 1882, p. 68.)

To protect the health of employées, all factories, manufacturing establishments, and workshops must be kept in cleanly condition and free from effluvia arising from drain, privy, or other nuisance; and no factories shall be so overcrowded as to be injurious to health, and they shall be well lighted and ventilated so as to render as harmless as possible.

ble gases, vapors, dust, and other impurities. Violation subjects offender to a fine of \$150. (Chapter 265, Acts of 1884, p. 365.)

Any five or more engaged in the same or similar occupation, a majority being citizens of Maryland, may incorporate as a "trades union" to promote their well-being and for mutual assistance. (Chapter 267, Acts of 1884.)

An agreement or combination by two or more to do or procure to be done any act in contemplation or furtherance of a trade dispute between employers and workmen shall not be indictable as a conspiracy if such act by one person would not be an offense. (Chapter 366, Acts of 1884.)

The employment of workmen in the mines of Alleghany and Garrett counties shall not exceed ten hours a day, from 7 o'clock a. m., unless by special contract. (Chapter 427, Acts of 1884.)

By Chapter 125, acts of 1876, Revised Code 1878, p. 820, children under 16 years of age must not be employed in any manufacturing establishment over ten hours a day. Violation by employer, parent, or guardian punishable by fine up to \$50.

Chapter 379, Acts of 1878, provides for arbitration between employers and employes.

MASSACHUSETTS.

Inspectors of factories and public buildings, being two or more of the district police designated by the governor, must enforce the various provisions of law relating to the inspection of buildings and the employment of women and minors in manufacturing and mercantile establishments, and for this purpose may enter all buildings used for public or manufacturing purposes, examine the methods of protection from accident, the means of escape from fire, and make investigations as to the employment of women and children. (Chapter 266, section 6, Acts of 1882; amending preceding acts.)

Openings of hoistways, hatchways, elevators, and well holes, upon every floor of a factory or mercantile or public building, shall be protected by good and sufficient trap doors or self-closing hatches and safety catches, or such other safeguards as the inspectors direct; and all due diligence shall be used to keep such trap doors closed at all times, except when in actual use by the occupant of the building having the use or control of the same. All elevator cars or cars, whether used for freight or passengers, shall be provided with some suitable mechanical device, to be approved by the said inspectors, whereby the cars or cabs will be securely held in the event of accident to the shipper rope or hoisting machinery, or from any similar cause. (As amended, Acts of 1882, Chapter 208, section 1.)

All factories and manufacturing establishments, three or more stories in height, in which forty or more persons are employed, unless supplied with a sufficient number of tower stairways, shall be provided with sufficient fire escapes, properly constructed upon the outside thereof, and connected with the interior by doors or windows, with suitable landings at every story above the first, including the attic, if the same be used for work rooms. Fire escapes must be kept in good repair, free from obstruction. Fire escapes existing on July 1, 1877, need not be changed in accordance with this section unless change is necessary for the protection of life. Cities may by ordinance provide that the provisions of this section relating to fire escapes shall apply to all buildings, three or more stories in height, within their limits.

Every building three or more stories in height, in whole or in part used, occupied, leased, or rented for a tenement to be occupied by more than four families, or a lodging house, shall be provided with a sufficient means of escape in case of fire, to be approved by inspector of factories and buildings.

Owner, lessee, or occupant of a manufacturing establishment, factory or workshop, or owning or controlling the use of any tenement house mentioned in last section shall, for violation of any inspection law, be liable to a fine of from \$50 to \$500, as well as for damages suffered by an employé through such violation, but no criminal prosecution

shall begin until four weeks after written notice from inspector of necessary changes has been delivered or sent by mail, and not then if changes have been made. Notice to one of a firm, or clerk, or treasurer of a corporation is sufficient to bind firm or corporation. This section is not to prohibit an injured person from bringing an action for damages.

Inspectors' authority not to extend to Boston or any other city which has officers specially appointed to enforce inspection laws.

District police, detailed as inspectors, failing to perform inspection duties faithfully shall be immediately discharged from their office. (Chapter 266, sections 1, 2, 3, 4, and 5, Acts of 1882, amending preceding acts.)

No explosive or inflammable compound shall be used in any factory in such place or manner as to obstruct or render hazardous the egress of operatives in case of fire. (Chapter 137, Acts of 1881.)

Persons or corporations employing females in manufacturing, mechanical, or mercantile establishments, must provide suitable seats and permit their use by such females when not necessarily engaged in their active duties. Violations punishable by fine of from \$10 to \$30 for each offense. (Chapter 150, Acts of 1882.)

Municipal officers may designate time and hours and fix size and weight of bells, whistles, and gongs which employers of workmen may use for their benefit. (Chapter 84, Acts of 1883.)

The act forbidding the employment of minors under 18 years of age, and women, more than ten hours a day, except when necessary to make repairs in the machinery to insure its ordinary running, or where hours are differently apportioned for the sole purpose of making one day's work shorter, and which provides that in no case shall the week's work exceed sixty hours, is amended by making the act apply to "mechanical and mercantile" as well as "manufacturing" establishments on and after July 1, 1883. (Chapter 157, Acts of 1883; but by chapter 275, Acts of 1884, amendatory act does not apply to "mercantile" establishments.)

Inspectors of factories and public buildings, or the inspector of buildings, in Boston, believing any freight or passenger elevator unsafe, dangerous to use, or unlawfully constructed, shall put a notice of its dangerous condition upon the door prohibiting its use until made safe to their satisfaction. Removing notice, or operating elevator while notice is affixed, without consent of inspector, punishable by a fine of from \$10 to \$50 for each offense. (Chapter 173, Acts of 1883.)

Chapter 52, section 1, Acts of 1876, being chapter 48, section 1, of the Public Statutes, which prohibited the employment of children under 10 years of age in any manufacturing, mechanical, or mercantile establishment under a forfeiture by parent or guardian permitting such employment of from \$20 to \$50 for the use of the public schools, is amended by adding, subject to the same forfeiture, a clause declaring that "no child under 12 years of age shall be so employed during the hours in which the public schools are in session in the city or town in which it resides," which was to take effect July 1, 1883. (Chapter 224, Acts of 1883.)

Outside or inside doors of buildings where operatives are employed shall not be locked, bolted, or otherwise fastened during labor hours, as to prevent free egress. Owners, lessees, or occupants of such buildings, neglecting or refusing to comply with this act after five days' written notice from an inspector, forfeit from \$10 to \$50. Inspectors of factories and public buildings shall enforce this act. (Chapter 52, Acts of 1884.)

No minor under 18 years of age shall be employed in laboring in any mercantile establishment more than sixty hours in any one week. Employers must post in conspicuous places where such persons are employed a notice printed, stating the number of hours required, not exceeding ten in any one day. Longer employment, unless to make up lost time, is a violation of this act. Persons or corporations having in their employment persons in violation of this act, or failing to post notice, and parents or guardians permitting such employment are liable to a fine of from \$50 to \$100 for each offense. On trials for wrongful employment a sworn statement by minor, and his parent or guardian, made by

him at the time of entering employment, as to his age, shall be *prima facie* evidence of the fact. Section 4, chapter 74, Public Statutes, as amended by chapter 157, Acts of 1883, is so far repealed as not to apply to mercantile establishments. (Chapter 275, Acts of 1884.)

Chapter 224, Acts of 1883, which amends chapter 52, section 1, Acts of 1876, being chapter 48, section 1, Public Statutes, is itself amended by forbidding the employment of children under 12 years of age "at any time during the days" instead of "during the hours" when the public schools are in session. (Chapter 222, Acts of 1885.)

Chapter 48, sections 2 to 7, Public Statutes, inclusive, provides that no child under 14 years of age shall be employed in any manufactory, mechanical or mercantile establishment, except during the vacations of the public schools, unless during the year preceding such employment he has for at least twenty weeks attended some public or private day school; nor shall such employment continue unless such child in each and every year attends school as aforesaid; and no child shall be so employed who does not present a certificate, made by or under the direction of the school committee, of his attendance at school as provided. Employers shall require and keep on file a certificate of the age and place of birth of every child under 16 years of age employed, and the amount of his school attendance during the year next preceding such employment. The penalty for employment of children contrary to these provisions is not less than \$20 nor more than \$50. Truant officers are obliged to visit establishments and inquire into the situation of the children employed, and may demand the names of children and the certificates of age and school attendance. Children under 14 years of age who cannot read and write are not to be employed while public schools are in session; parents or guardians permitting such employment are subject to a fine of not less than \$20 nor more than \$50.

Chapter 74, section 1, provides that employers requiring from employes, under penalty of forfeiture of wages earned, a notice of intention to leave employment, shall be liable to like forfeiture if employe be discharged without similar notice, except for incapacity or misconduct, unless in case of a general suspension of labor by such employers.

Sections 2 and 3 provide that whoever, by intimidation or force, prevents or seeks to prevent a person from entering into or continuing in the employment of a person or corporation, shall be punished by fine of not more than \$100; and that employers are not to contract with employes for exemption from liability for injuries resulting from employers' own negligence.

Chapter 104, sections 13, 15, and 16, provides that the belting, shafting, gearing, and drums of all factories, when so placed as to be dangerous to persons employed therein while engaged in their ordinary duties, shall be as far as practicable securely guarded. No machinery, other than steam-engines, in a factory shall be cleaned while running, if objected to in writing by an inspector.

All factories shall be well ventilated and kept clean.

Every room above the second story in factories or workshops in which five or more operatives are employed shall be provided with more than one way of egress by stairways on the inside or outside of the building, and such stairways shall be, as nearly as may be practicable, at opposite ends of the room. Stairways on the outside of the building shall have suitable railed landings at each story above the first, and shall connect with each story of the building by doors or windows opening outwardly, and such doors, windows, and landings shall be kept at all times clear of obstruction. All main doors, both inside and outside, must open outwardly, and each story must be amply supplied with means for extinguishing fires.

MICHIGAN.

No child under 14 years of age shall be employed in any business unless he has attended a public or private day school, taught by a person qualified in primary branches, at least four months out of the twelve next preceding the month of employment, except in districts where there is only a three months' school. A certificate of attendance

from a superintendent of school, or a school director, is sufficient if acted upon by the employer in good faith. Making a false certificate is a misdemeanor. Certificates must be deposited with the employer at the time of the employment and kept on file subject to inspection.

No child under 10 years of age shall be employed in any factory, warehouse, or workshop where goods are manufactured or prepared for manufacture.

No child or young person under 18 years of age, and no woman shall be employed over ten hours a day or sixty hours a week, and at least one hour shall be allowed in the labor period for dinner.

Persons employing females in any factory, workshop, store, or hotel, shall provide seats for them to use when not necessarily engaged in their employment. Violation of this act is a misdemeanor, punishable by a fine of \$50.

Chief officer of police in cities and supervisors of towns must inspect, report, and prosecute violations, and directors of corporations wilfully violating act are each liable. This act is not to apply to penal, reformatory, or benevolent institutions. (Acts of 1885, No. 39, p. 37, amending and additional to Acts of 1883, No. 144, p. 149.)

Owner, proprietor, or lessee of a building, factory, mill, warehouse, or workshop more than two stories high, where male and female help is employed above the second story, shall provide suitable ladders or such other fire escapes as may be necessary for the escape of employes. The board of building inspectors shall examine buildings at least once a year and report to township or village boards, or the common council of cities, who may notify in writing owner, proprietor, or lessee to provide needful alterations or additions. A refusal to alter or add subjects person refusing to a penalty of from \$25 to \$100 a month. (Acts of 1883, No. 170, p. 182.)

Ten hours are a legal day's work, unless there be an agreement to the contrary, in factories, workshops, salt mills, saw mills, logging, or lumber camps, booms, or drives, mines, or other places used for mechanical, manufacturing, or other purposes, where men and women are employed. Employers requiring more work shall pay per diem rates for overtime. Employers taking advantage of the poverty or misfortune of employe or one seeking employment, are guilty of a misdemeanor and liable to a fine of from \$5 to \$50 for each offense. This act does not apply to domestic or farm laborers. (Acts of 1885, No. 137, p. 154.)

Formation of corporations is authorized of five or more persons in the interest of trade or labor "for the improvement of their several social and material interests, the regulation of their wages, the laws and conditions of their employment, the protection of their joint and individual rights in the prosecution of their trades or industrial vocations, the collection and payment of funds for the benefit of sick, disabled members, etc., and all existing associations may become corporate." (Acts of 1885, No. 145, p. 163.)

MINNESOTA.

On all railroad lines the labor of locomotive engineers and firemen shall not exceed eighteen hours in one day, provided that no engineer or firemen shall desert his engine in case of accident or other unavoidable delay. Officer, director, superintendent, master mechanic, foreman, agent or employe compelling such labor, except as herein provided, or in cases of urgent necessity, may be fined from \$25 to \$100. (Acts of 1885, Chapter 206, p. 277.)

Chapter 24, Statutes of 1878, provides that children under 18 years of age and women shall not work over ten hours a day in any manufactory or workshop. Any person compelling such work is liable to a fine of from \$10 to \$100. In any manufacturing or mechanical business ten hours shall be a day's work in the absence of a special contract.

MISSOURI.

An act similar to the Colorado act provides for the health and safety of miners. Copy of owner's map to be deposited with the clerk of the county court where mine is situated,

as well as at mine office. Map to be corrected in January. Mines employing ten or more men must have two outlets, to be completed in one year if mine be under 100 feet deep, in two years if between 100 and 200, in three years if between 200 and 300, in four years if between 300 and 500, and in five years if over 500. Where working force has been driven up to another mine the respective owners while working must keep an open roadway at least two and one-half feet high and four feet wide as a communication. Escapement shaft must be separated from main shaft by natural strata of a width at the discretion of the mine inspector. The ventilation must be at the rate of 100 cubic feet of air per man per minute, to be measured at the foot of the downcast.

No male person under 12 years of age, or female of any age, is permitted to work in a coal mine, nor is any boy under 14 years of age, unless he can read and write. Engineers employed must not be under 18 years of age. No more than twelve persons shall ride at once, and the number to ascend or descend in one cage may be from four to twelve, as the mine inspector may direct, and the rate of speed shall not exceed 500 feet a minute. Places of refuge at the sides of underground gangways must not be over twenty feet apart.

County court of county where coal mine is situated appoints qualified mining or civil engineer to be mine inspector—must be one year a resident of county, and not interested in any mine—at a bond of \$500. Court fixes compensation, and may unite offices of "mining inspector" and "county engineer." The inspector must collect facts relating to mines and miners, and make an annual report to the commissioner of labor statistics and inspection. Violations of this act are punishable by fine from \$50 to \$200 for first offense, and \$200 to \$500 for subsequent offense. (Act of March 23, 1881, p. 165, as amended by Acts of 1885, p. 206.)

The owner, lessee, operator, or manager of any mine, factory, workshop, warehouse, elevator, foundry, machine shop, or other manufacturing establishment, shall not put at work, or place therein for the purpose of labor or service, more persons in any one room or place than hygienic laws will warrant with safety to the health of such persons. All such rooms or places of employment shall have sufficient ventilation to carry off all foul or impure air, and to reduce the air of such room or place of employment to the standard of fresh air as near as may be practicable. Such rooms or places shall also have a sufficient number of doors, stairways, and fire escapes for the ready egress and escape of the maximum number of employes therein, and it is the duty of the commissioner of labor statistics and inspection to include in his annual report any non-observance of the requirements and regulations which come to his knowledge, together with the facts in relation thereto and such recommendations as seem proper. Persons controlling places mentioned refusing the commissioner admission for inspection, or neglecting or refusing to furnish information, are liable to a fine of from \$25 to \$100. (Acts of 1883, p. 192, repealing acts of 1879, p. 174; Revised Statutes, p. 1419.)

Railroad, mining, express, telegraph, and manufacturing companies must give thirty days' notice of a reduction of wages, by posting written or printed bills specifying parties and the amount of reduction, in a conspicuous place where employes are at work, or mailing same to each employe. For a violation the injured party may recover \$50 and costs. (Acts of 1885, p. 82.)

Persons or corporations engaged in manufacturing or mining are not to issue, pay out, or circulate for payment of wages of labor any order, check, memorandum, token, or evidence of indebtedness payable in whole or part otherwise than in lawful money of the United States, unless negotiable and redeemable at face value without discount, in cash or goods, at the option of the holder, at the place of business of such persons or corporations, or at the store of any other person on whom the paper is drawn where goods are kept for sale, and the issuer within thirty days from date of delivery shall redeem the same in goods at the market price or lawful money, at the option of the holder. If employers have pay days every thirty days, they are not obliged to redeem in cash until

the next pay day. Violation of this act is punishable by fine from \$10 to \$500 for each offense. (Acts of 1885, p. 83; amending Acts of 1881, p. 73.)

Employers of females in any mercantile business must provide suitable seats for their use at or beside their counters or work benches and permit the use of such seats by such females to a reasonable extent for the preservation of their health. Violation of this act is punishable by fine not to exceed \$25 for each offense; and it is the duty of the commissioner of labor statistics and inspection to see that the act is observed. (Acts of 1885, p. 150.)

It is forbidden mine owners, agents, or operators employing miners at bushel or ton rates, or other quantity, to pass output mined by miners over screen or device which takes any part from the value thereof before it has been weighed and duly credited to the employé sending it to the surface and accounted for according to legal weights. There must be a weighman at each mine, sworn to do justice between employer and employé, and weigh output of coal as above required. He must take oath and post same in weigh-room, and a violation of its provisions is punishable by fine of from \$25 to \$100, or imprisonment for thirty days, or both, for each offense. Persons having or using scales for the purpose of weighing output, so arranged or constructed that fraudulent weighing can be done, or knowingly resorting to any means whereby coal is not properly weighed, may be punished by fine from \$200 to \$500, or imprisonment for sixty days, or both, for each offense. All contracts between operators and miners militating against this act are void, and all coal sent to the surface shall be weighed in accordance with their provisions. This act applies to the class of persons known as loaders, engaged in mines where work is done by machinery; where workmen are under contract to load coal by the bushel, ton, or any other quantity, and where settlement is had by weight, the output must be weighed in accordance with this act. (Acts of 1885, p. 207.)

When no special agreement has been made, measurements of earth work, stone masonry, brick, stonecutting, plastering, or roofing work, must be made in accordance with this act to secure a basis for payment of labor. (Acts of 1885, p. 198.)

NEBRASKA.

Employers of female help in stores, offices, or schools, to provide chairs, stools, or seats for such employées, upon which they shall be allowed to rest when their duties will permit, or when such position does not interfere with the faithful discharge of their duties. Violation forfeits \$10 to \$50 to employé whose health has been injured by neglect of employer to provide a suitable seat. (Acts of 1883, chapter 45; Compiled Statutes, section 245; Criminal Code, p. 808.)

Chapter 90, p. 621, Compiled Statutes, makes ten hours a day's labor, so far as it concerns laborers and mechanics.

NEW HAMPSHIRE.

Truant officers, when required by school committees and boards of education, must enforce the laws regarding children in manufacturing establishments. (Chapter 42, Laws of 1881, p. 464.)

No child under 16 years of age shall be employed in a manufacturing establishment unless he has attended a public school, or private day school taught by a person competent to teach common-school branches, at least twelve weeks during the preceding year. No child under that age can be so employed except in vacation of the schools in his district, who can not write legibly and read fluently in readers of the grade usually classed as Third Reader. (Chapter 56, Laws of 1881, p. 475; amending sections 11 and 12, Chapter 91, General Laws of 1878.)

Mayor and aldermen of cities and selectmen of towns, by themselves, or inspectors appointed by them, shall superintend and direct the construction of buildings used for factories, etc., and inspecting officers shall examine all buildings in use or hereafter erected.

If buildings be unsafe, or so managed as to be unhealthful, or not provided with suitable fire escapes, they may be closed until alterations prescribed by inspecting officers be made.

Persons using buildings after order from inspecting officers closing them (unless prescribed alterations be made), are liable to a fine up to \$100, for the use of the city or town. (Chapter 94, Laws of 1883, p. 61.)

An act in amendment of section 1 of chapter 269 of the General Laws, and to aid and protect the laboring and manufacturing interests of the state, adds at the end of the section: "Nor shall any person address to any person passing along any street to, from, or about his lawful business or occupation, any offensive, derisive, or annoying word or words, or call such person by any derisive or offensive name; nor shall any person make any noise or exclamation in the presence or hearing of such person so passing with intent to deride, offend, or annoy such person, or to prevent him from pursuing his lawful business or occupation." Violation of this act is a misdemeanor. (Chapter 78, Laws of 1885, p. 274.)

Chapter 91, General Laws, section 13, p. 222, provides that persons employing in factories children under the age of 15 without certificate of necessary schooling, are liable to a fine of \$20 for each offense. Chapter 187, General Laws, section 14, provides that no person shall be compelled to work more than ten hours a day, which, in the absence of a special contract, are a legal day's work. Section 15 provides that no minor under the age of 15 shall be employed more than ten hours a day in any manufacturing establishment without the written consent of parent or guardian. Employer violating may be fined \$100. Chapter 21, Laws of 1879, p. 340, provides that no child under the age of ten years shall be employed by any manufacturing company under a penalty of from \$20 to \$100, one-half to go to the complainant and one-half to the state.

NEW JERSEY.

Employers who own or control stores for the sale of general store goods and merchandise in connection with their manufacturing or other business, shall not attempt to control their own employes or laborers in the purchase of store goods or supplies at said stores by withholding payment of wages longer than the usual time of payment, whereby employes are compelled to purchase supplies at said stores. Violation punishable by fine up to \$100 and costs. (Public Laws 1881, chapter 190, p. 239.)

Employers of females in any mercantile business must provide suitable seats for their use at or beside counters or work benches where such females are employed, and must permit them to use such seats to the extent necessary for the preservation of their health. Violation is punishable by fine up to \$100. (Public Laws 1882, chapter 159, p. 227.)

Corporations or persons employing females in any manufacturing, mechanical, or mercantile establishment must provide suitable seats for the use of female employes, and permit such use when such employes are not necessarily engaged in active duty. Violation is punishable by fine of from \$10 to \$25. (Public Laws 1884, chapter 137, p. 200.)

Persons owning, leasing, or controlling * * * factories, manufactories, or workshops of any kind in which employes or operatives to the number of thirty or more are steadily or casually at work, such factories, etc., being three or more stories high, such persons employing shall provide such buildings with safe external means of escape, so arranged that in case of fire the ground can be readily reached from the third or higher floors.

Fire inspectors must designate the number and kind of and the manner in which said external fire escapes are to be erected, and give notice of the same to such employers.

Failure or refusal to comply with notice after ninety days after receipt thereof is punishable by fine up to \$300, and the violator is liable in damages for death or personal injury from fire. (Public Laws 1882, chapter 110, p. 142.)

No boy under 12 or girl under 14 years of age shall be employed in any factory, mine, workshop, or establishment where the manufacture of any kind of goods whatever is carried on. No child between 12 and 15 years of age shall be so employed unless such child has attended public day or night school, or well-recognized private school, at least five days or evenings in each week for at least twelve consecutive weeks in the twelve months next preceding employment; such attendance may be divided into two terms of six consecutive weeks each, so far as the arrangements of school terms will permit, and unless such child or his parent or guardian shall have presented to the employer a certificate, to be signed by the teacher, giving the name of the parent or guardian, the name and number of schools attended, and number of weeks' attendance: *Provided*, That if age be not known, teacher may certify to the best of his ability; and, *Provided*, That in case of orphan children, where necessity may require, the inspector may permit employment upon the application of the guardian.

This act does not apply, so far as hours of employment are concerned, to persons engaged in preserving perishable goods in fruit-canning establishments.

Governor, with advice of senate, shall appoint a "factory and workshop inspector," who must report annually to the governor by or before October 31. He shall appoint, with the governor's approval, two "deputy inspectors." His salary is \$1,800 a year, with the right to travel free on railroads. The salaries of his deputies are fixed at \$1,000 each annually. It is the duty of these officers to enforce this act and all laws relating to the sanitary conditions of factories and workshops, and the employment, safety, protection, and compulsory attendance at school of minors, and to institute suits in the name of the inspector. They have power to demand from physicians certificates of the physical condition of minors, and may prohibit the employment of minors who cannot obtain such certificates. They may require parents and guardians to furnish certificates from the registry of births, or an affidavit of the age of minors, false swearing in which is perjury. Employers violating act forfeit \$50 for each offense, recoverable in an action of debt. Parents or guardians knowingly permitting wrongful employment forfeit \$50 in an action by the inspector, execution in which to run against the person. Affidavits of parents and guardians as to age conclusive in trials against employers. Inspector or deputies finding minor working under false certificate may compel him to desist. (Public Laws of 1884, chapter 137, p. 200, supplementary to Public Laws of 1883, chapter 57, p. 59.)

It is not unlawful for any two or more persons to unite, combine, or bind themselves by oath, covenant, agreement, alliance, or otherwise, to persuade, advise, or encourage, by peaceable means, any person to enter into any combination for or against leaving or entering into the employment of any person or corporation. (Public Laws of 1883, chapter 28, p. 36.)

Manufacturers requiring from employes, under forfeiture of wages, notice of intention to quit, shall be liable to like forfeiture if they discharge employes without similar notice, unless in case of a general suspension of business.

Accidents in workshops, mines, and factories must be at once reported to workshop inspector at Trenton and city or district physician.

Belting, shafting, gearing, and drums in factories and workshops dangerous to employes to be securely guarded when possible, otherwise notice of danger to be conspicuously posted.

No minor under 18, or woman, shall clean gearing or machinery when in motion, or work between traversing part of any machine while in motion by mechanical power.

Openings of hoistways, etc., on floors in factories and mercantile buildings must be protected by trap doors, self-closing hatches, or guard rails three feet high.

Explosives or inflammable compounds not to be used so as to render hazardous egress in case of fire.

No minor under 16 employed more than ten hours a day or sixty hours a week in any manufacturing, mercantile, or mechanical establishment.

Suitable places to be provided, where females perform unclean work, for them to wash and dress, and stairways used by them must be screened.

Separate water closets for the sexes must be provided.

Inspector may have power to prohibit overcrowding in factories when he, supported by a physician's opinion, believes it to exist.

Inspector may order fan or mechanical apparatus to prevent the inhalation of dust in establishments where dust is generated by the work.

Factories and mines must be ventilated, to be as near harmless as possible.

Provision is made for the construction and ventilation of bake houses.

Workmen and others must not sleep where bread is made.

Violation of act subjects offender to a penalty of \$50 for each offense in an action of debt, execution to run against the body. (Public Laws of 1885, chapter 188.)

Parents, guardians, or other persons controlling children from 12 to 16 years old, temporarily discharged from employment to receive instruction, must send them to school while so out of employment, unless excused by inspector or school board, under fine of from \$10 to \$25 for first offense, and a fine of \$25 or imprisonment from one to three months for each subsequent offense, fines to go to the school fund.

When no school within two miles of factory or shop where child under 15 is employed, or of his residence, attendance at school temporarily approved by inspector is compliance with the law. (Public Laws of 1885, chapter 217.)

By Public Laws of 1880, chapter 138, page 170, provisions were made for the arbitration of labor disputes before an arbitrator selected by employers, another by employes, and a third by the other two. Arbitration is voluntary, but after submission the award is binding. Other legislation was adopted up to 1880, but it is mainly covered by subsequent enactments.

NEW MEXICO TERRITORY.

An act similar to the Colorado act provides for the safety and health of miners and the inspection of coal mines. There must be at least two shafts, slopes, or outlets separated by natural strata of 150 feet in breadth.

The amount of ventilation required is not less than fifty-five cubic feet per second of pure air, or 3,300 feet per minute, for every fifty men working, and as much more as circumstances may require.

There is no mine inspector, but his duties are performed by an inside overseer for every mine, appointed by the owner or agent thereof. Any neglect on the part of the overseer wilfully is a misdemeanor, and if death ensue he is guilty of manslaughter. (Compiled Laws of 1884, sections 1575 to 1585, inclusive; Laws of 1882, chapter 57.)

By Compiled Laws of 1884, section 1568, Laws of 1876, chapter 38, it is provided that in estimating the worth of labor required to be performed upon any mining claims to hold the same by the laws of the United States, in the regulation of mines, the value of a day's labor is fixed at \$4, provided that in the sense of this statute eight hours of labor actually performed upon a mining claim shall constitute a day's labor.

NEW YORK.

Employers of females in any mercantile or manufacturing business or occupation must provide and maintain suitable seats for the use of such female employes to such an extent as may be reasonable for the preservation of their health. Violation is a misdemeanor. (Revised Statutes, p. 1089; Laws of 1881, chapter 298.)

No conspiracy is punishable criminally unless it is one of those enumerated in the last two sections, and the orderly and peaceable assembling or coöperation of persons employed in any calling, trade, or handicraft for the purpose of obtaining an advance in the rate of wages, or compensation, or of maintaining such rate is not a conspiracy. (Laws of 1882, chapter 384, amending section 170, Penal Code.)

Nothing in this code shall be so construed as to prevent any person from demanding an increase of wages, or from assembling and using all lawful means to induce employers to pay such wages to all persons employed by them as shall be a just and fair compensation for services rendered. (Laws of 1882, chapter 384, amending section 675, Penal Code.)

The manufacture of cigars or the preparation of tobacco in any form on any floor or in any part of any floor in any tenement house is forbidden in cities having over 500,000 population, if such floor, or any part of such floor, be by any person occupied as a home or residence for the purpose of living, sleeping, cooking, or doing any household work therein.

Any house, building, or portion thereof occupied as the home or residence of more than three families living independently of one another, and doing their own cooking upon the premises, is a tenement house.

The first floor, if cigars or tobacco be there sold, is exempt from the provisions of this act.

Violation of act is a misdemeanor punishable by fine of from \$10 to \$100, or by imprisonment from ten days to six months, or both. (Laws of 1884, chapter 272, superseding Laws of 1883, chapter 93.)

A person employing or directing another to perform labor in the erection, repairing, altering, or painting of any house, or building, or other structure, who shall knowingly or negligently furnish and erect, or cause to be furnished for erection, for or in the performance of such labor, such unsuitable or improper scaffolding, hoists, stays, ladders, or other mechanical contrivances as will not give proper protection to the life and limb of any person so employed, is guilty of a misdemeanor and may be fined up to \$500, or be imprisoned from thirty days to six months, or both. (Laws of 1885, chapter 314.)

By Revised Statutes, page 2354, Laws of 1870, chapter 385, it is provided that eight hours shall be a day's work for mechanics, workmen, and laborers, except in farm or domestic labor, but overwork for extra pay is permitted. This act applies to those employed by the state or municipality, or employed by persons contracting for state work. Violation of act by officers subjects them to removal, and violation or evasion by contractors is punishable by fine of from \$100 to \$500, and, at option of the state, a forfeiture of the contract.

By Revised Statutes, page 1206, Laws of 1874, chapter 421, no child of less than 14 years of age shall be employed during school hours, unless such child has attended a public or private day school or been satisfactorily instructed at home for fourteen of the preceding fifty-two weeks of every year. The usual certificate of attendance is provided for, and a fine of \$50 is made the penalty for each violation of the act.

OHIO.

It is the duty of the owners or agents of factories or workshops, if more than two stories high, to provide convenient exits from the different upper stories, easily accessible in case of fire. Mayors of cities or villages must require owners or agents of such factories or workshops to provide such exits within sixty days after receipt of written notice from them.

Owners or agents refusing compliance with such notice forfeit from \$50 to \$300 a month, recoverable by action for the use of the city or village where building is situated.

Mayors, or chiefs, or other heads of police, as inspectors of fire escapes, must examine

buildings covered by this act once a year and report to city councils. (Laws of 1883, p. 187, amending sections 2573, 2574, and 2575 of the Revised Statutes.)

An act similar to the Colorado act provides for the inspection of mines. The following is the legislation thereon since 1880:

All safety lamps in coal mines must be property of mine owner and in charge of mine agent; in all mines doors used for assisting ventilation must shut of their own accord and not be able to stand open; mining boss must keep careful watch over ventilation and measure it once a week at the inlets, outlets, and faces of all entries; measurements must be recorded and furnished mine inspector monthly. (Laws of 1881, p. 80, amending section 301, Revised Statutes.)

Miners and land owners shall have access to mines and examine machinery and scales and apparatus to test their accuracy; may designate persons, one for each, to see weights, measures, and accounts; and miners may appoint two of their number to inspect once a month mines and machinery and measure ventilating current; owners shall afford every facility, and committee must report within ten days to mine inspector. (Laws of 1881, p. 129, amending section 305, Revised Statutes.)

Ventilation of all coal mines shall be not less than 100 cubic feet per minute, per person employed, so circulated as to render harmless gas in working places, and no working place shall be driven more than 120 feet in advance of a break-through, all which, except those last made, shall be closed up air tight, so that air currents shall sweep through the mine; artificial means of producing ventilation must be provided, such as suction fans, exhaust-steam furnaces, etc.; mines generating firedamp must be kept free from standing gas and examined every morning by competent persons with safety lamps before workmen are allowed to enter. (Laws of 1881, page 148, amending section 298, Revised Statutes.)

Owners or agents of mines having excavation 15,000 yards wide must make map, 200 feet to the inch, showing actual condition of mines, lines of adjoining lands and names of owners, to be annually improved to show changes of condition during preceding year, or semi-annually when mine inspector directs; map to be kept at mine office and a copy filed, when requested by inspector, at Columbus; inspector makes map at owner's cost when owner refuses; owner refusing, after sixty days' notice from inspector may be fined \$5 a day until map or addition is made; when mines are exhausted or abandoned, maps must be made, before pillars are drawn, showing the last workings, to be filed with the county recorder within ninety days, with sworn certificate of its correctness from engineer making map and mining boss. (Laws of 1883, p. 57, amending section 296, Revised Statutes.)

The state is divided into three mining districts, governor to appoint a chief inspector for four years at \$5,000 bond, and the latter three district inspectors for three years at \$2,000 bond. Chief must have knowledge of chemistry, mineralogy, and the geology of Ohio, so far as such knowledge relates to mining, and a practical knowledge of mining engineering, the different systems of working and ventilating mines, and the nature and property of noxious gases. Inspectors must give their whole time to their duties, examine the condition of all mines as often as possible, and make a record of the date of examination, condition of mines, extent to which laws are observed, progress in improvement, and in security of life and health sought to be secured by this chapter, number of accidents, injuries received, and deaths. Loss of life occurring, inspector and coroner hold inquest. Former files record monthly and has free access to mines. Chief inspector makes rules and regulations and annual reports to the governor; has office in state-house, and keeps maps and plans of all mines in the state, and records of his work. District inspector has office in the central part of the district, and keeps maps and records. Where the voice cannot be heard throughout mine the owner must provide a metal speaking tube to carry sound from top to bottom. He must provide an approved safety catch and sufficient cover overhead on all carriages used for hoisting or lowering persons, and at top of shaft an approved safety gate and an adequate brake to every drum

or machine used for hoisting or lowering persons in shafts or slopes, and in every shaft a passage way from one side to the other, so that persons do not have to pass under descending cages. (Laws of 1884, p. 153, amending sections 290, 291, 292, 293, 294, 295, and 299, Revised Statutes.)

No minor under 12 years of age shall be employed in any factory, workshop, or establishment where goods are manufactured, nor under 18 years of age more than ten hours a day, and in no case shall hours of labor exceed sixty a week. Employers must post in every room notices stating the number of hours labor required each day. Violation punishable by fine of from \$50 to \$100, or imprisonment not less than thirty nor more than sixty days, to be prosecuted by inspector of shops and factories for the benefit of the school funds. (Laws of 1885, April 27, repealing original section 6986, Revised Statutes.)

Persons or corporations employing female employes in any manufacturing, mechanical, or mercantile establishment shall provide suitable seats for their use, and permit them to use such seats when not necessarily engaged in the active duties for which they are employed. Violation punishable by fine from \$10 to \$20 for each offense. (Laws of 1885, April 16.)

The chief inspector and the district inspectors of workshops and factories shall carefully inspect the sanitary condition of all workshops and factories in their respective districts; examine the system of sewerage in connection therewith, the situation and condition of water closets or urinals in and about the same, the system of heating, lighting, and ventilating all rooms therein where persons are employed at daily labor, the means of exit in case of fire or other disaster, and all belting, shafting, gearing, elevators, drums, and machinery of every kind and description in and about the same, and see that they are not located so as to be dangerous to employes when at work, and that they are, so far as practicable, securely guarded, and that every vat, pan, or structure filled with molten lead or hot liquid shall be surrounded with proper safeguards for preventing accident or injury to those employed, and that all such shops and factories are in a proper sanitary condition, and adequately provided with means of escape in case of fire or other disaster.

Inspectors, if they find upon such inspection that the heating, lighting, ventilation, or sanitary arrangement of such shop or factory is such as to be injurious to the health of persons employed or residing therein, or that the means of egress, in case of fire or other disaster, is not sufficient, or that the belting, shafting, gearing, elevators, drums, and machinery therein are dangerously located, or that structures filled with hot metal or liquid are not surrounded with proper safeguards for preventing accident, shall notify owners or agents of such shops or factories to make necessary alterations within thirty days, or some reasonable time. Failure to make alterations is a misdemeanor punishable by fine of from \$10 to \$200.

District inspectors must make a record of all examinations, showing date, condition of shops and factories, changes ordered, number of shops and factories, number of men, women, and children employed in each, with such other facts as they think proper, which record must be filed weekly with the chief inspector, to be by him recorded, and so much as is of public interest to be included in his annual report. (Laws 1885, amending and repealing sections 2573a, 2573b, 2573c, supplementary to section 2573, Revised Statutes, being Laws of 1884, p. 153.)

By sections 297, 300, 302, 303, 304, and 306, Revised Statutes, it is provided that in mines worked by shaft where 15,000 square yards have been excavated, no person shall work unless to every seam of coal there are two separate outlets separated by 100 feet of natural strata, and in all other mines after 15,000 square yards of excavation there must be two such outlets within twelve months after such excavation and until second outlet be made no more than ten persons shall work at once. There must be sober and competent engineers, and no more than ten persons shall ride on a cage at

once, and no one on loaded cage in any shaft or slope. No boy under 12 shall be allowed to work in any mine, nor any minor between the ages of 12 and 16 unless he can read and write. Inspector may enjoin mine owner from employing over ten miners until second outlet is completed. On written charges of gross neglect or malfeasance against an inspector, signed by fifteen miners or one operator, a board of examiners appointed by governor, consisting of two practical coal miners, one chemist, one mining engineer, and one operator, hear the case, take testimony, and report to the governor. This chapter does not apply to mines with no more than ten employés, but the inspectors may make regulations for them upon the application of the owners.

Section 4024, Revised Statutes, forbids employment of children under 14, residing in the state during preceding school year, under control of parent or guardian, not dependent upon their own resources for support, during school hours, unless they have attended school twelve weeks of preceding school year. A certificate of attendance is required. Such employment must not be over forty weeks in the year unless such children furnish employers with certificates showing their exemption from this section, which section does not apply when the nearest school is over two miles from residence.

Section 4029, Revised Statutes, makes two weeks attendance at half-time or night school equal to one week at day school.

Section 6986, Revised Statutes, fines from \$5 to \$50 employers compelling women, or children under 18, or permitting any child under 14, to work more than ten hours a day in any place used for mechanical or manufacturing purposes.

Section 7015 fines from \$5 to \$100 employers who issue in payment of wages orders payable in anything but money, or by intervention of such orders pays wages in goods at higher prices than cash rates, or sell goods to laborers on orders issued by employers, or do any other thing by which wages are paid in goods at higher prices than cash rates.

Section 7016 fines from \$20 to \$100, or imprisons not more than sixty days, or punishes in both ways, those compelling or inducing them to alter their modes of carrying on business, or limiting or increasing employés' wages or term of services, may be fined from \$20 to \$300, or be imprisoned from one to six months. There has been no labor legislation since 1880.

Section 4365 makes ten hours a legal day's work in any manufacturing or mechanical business, when the contract is silent, and all contracts shall be so construed.

Sections 307, 308, 309, and 310 provide for the appointment by the governor of a commissioner of statistics of labor for two years, with the usual powers and duties; with \$2,000 allowed for annual salary, by section 1284, and \$500 for annual expenses, by section 1296.

OREGON.

By sections 670, General Statutes, Acts of 1864, sections 655, it is provided that persons preventing or endeavoring to prevent, by threats, force, or intimidation, employés from continuing or performing work, or accepting new work, or preventing or endeavoring to prevent employers from employing any person, or compelling them to employ any person, or forcing or inducing them to alter their modes of carrying on business, or limiting or increasing employés' wages or term of services, may be fined from \$20 to \$300, or be imprisoned from one to six months. There has been no labor legislation since 1880.

PENNSYLVANIA.

Presiding justices of common pleas courts, upon petition or agreement, shall issue license for the establishment of tribunals to settle disputes in iron, steel, glass, textile fabrics and coal trades. Petition must be signed by fifty workman or five separate firms, individuals, or corporations, within county of petitioners, or by five employers each employing at least ten men, or by the representatives of a firm, individual, or corporation employing not less than seventy-five men, and the agreement shall be signed by both of said specified numbers and persons: *Provided*, That if there be a strike or dispute at the time, and

suspension exists, or is probable, the judge shall require testimony as to the representative character of petitioners, and if they do not represent at least half each party in dispute license may be denied. Workmen signing must be resident of judicial district one year, engaged in branch of trade they represent for two years, and be citizens of the United States. Employers signing must also be citizens, and engaged in some branch of the different business mentioned for one year, must each employ ten workmen of such branch and each may be a firm, individual, or corporation. Petition must be sworn to by at least two signers.

If petition be correct and contain names of an equal number of arbitrators on each side, and of an umpire mutually chosen, the judge shall issue a license authorizing the existence of a tribunal, and fixing the time and place of meeting, which shall be recorded in the court of common pleas. If petition have sufficient number of signers on one, but not both sides, license may issue conditioned on assent of delinquent side in writing, with names of arbitrators, umpire, etc.; if no assent within sixty days, petition to be dismissed.

One tribunal may be created in each judicial district for each of the trades named, to continue for one year, and take jurisdiction of any dispute between employers and workmen, who have petitioned, or been represented in petition, for tribunal, or who submit disputes in writing. Vacancies in tribunal are to be filled by the judge from three names presented by remaining members of same class. Removal to adjoining county creates no vacancy in arbitrators or umpire, and disputes in one county may be referred to tribunal in adjoining county.

The position of umpire can only be filled by the mutual choice of all the representatives of both employers and workmen, and he acts only after failure of tribunal to agree in three meetings. His award is final only upon what is submitted to him in writing signed by all members of the tribunal, or by parties submitting the same, and upon questions affecting the price of labor. It shall in no case be binding upon either employer or workmen, save as they may acquiesce or agree therein after such award.

Tribunal shall consist of not less than two employers, or their representatives, and two workmen, the exact number being inserted in the petition or agreement, and they shall be named in license. There shall be a chairman and secretary. Tribunal shall receive no compensation from city or county, but expenses, other than fuel, light, and the use of room and furniture, which are furnished by city or county, may be paid by voluntary subscriptions, which tribunal may receive.

When there is no umpire a chairman chosen administers oaths, signs subpoenas, etc., as umpires do when acting. No lawyers or agents are to appear on either side, and the proceedings are voluntary. Umpire's decision as to admission of evidence is final. Committees from the tribunal, an equal number from each side, may unanimously decide questions. Rules are to be made by tribunal and umpire to govern proceedings. Umpire shall be sworn and make his award within ten days, which is made a matter of record by producing same to the judge within thirty days, who approves it. The act is to be cited, "Voluntary trade-tribunal act of 1883," and forms are given for petition, license, submission, and award. (Brightley's Purdon's Digest, 1883; Public Laws of 1886, p. 15.)

Persons mining and manufacturing, or either, coal ore or other mineral shall pay their employes in lawful money, or by order redeemable at its face value in lawful money by the issuer within thirty days. Violation a misdemeanor, punishable by fine up to \$100, to go to school fund. Employers interested in merchandising are not to make a greater profit on goods than outside dealers in like articles. Violation makes the debt uncollectible from employé. Employers refusing for twenty days to pay employes regularly or to redeem orders shall pay 1 per cent. a month if suit be brought for amount due. (Public Laws of 1881, p. 147, June 29.)

Miners are to be paid for the quantity of coal mined, whether nut or lump coal, seventy-six pounds being a bushel and 2,000 pounds a ton, but other contracts may be made. Cars

are to be of uniform capacity and branded by mine inspector. No unbranded cars can enter mine longer than three months without being branded; this provision not to apply to mines using no more than ten cars.

At every bituminous mine the miners have a right to employ a check weighman and measurer, who has the right to examine scales, measure cars, and to be always present at weighing and measuring, examinations and measurements to be at seasonable hours, so as not to interfere with work. Interference with him is punishable by fine of from \$20 to \$100, or imprisonment. He shall credit each miner with merchantable coal mined by him in a book kept for the purpose. Disputes between him and owner to be settled by the mine inspector, and cheating by him is punishable with three months' imprisonment.

Misdemeanor for owner to switch cars before dumping. Violation is punishable by fine of \$100, and restitution must be made to miner for sums lost. (Public Laws of 1883, p. 52, June 1.)

Unlawful for persons or corporations engaged in mining or manufacturing coal, or both, to employ or permit to be employed female labor or laborers in or about any coal mine or manufactory. Violation punishable by fine of from \$100 to \$500, or imprisonment up to six months, or both, one half of fine to go to informer and one half to the school fund of the district. The act does not affect the employment of females in office, or clerical work. (Public Laws of 1885, No. 165, p. 202, June 30.)

In addition to fire escapes provided by the act of June 11, 1879, Public Law 128, which must be safe, permanent, and external, and satisfactory to fire commissioners, it is made the duty of owners of buildings used for factories, manufactories, work shops, or tenement houses more than two stories high, to provide and cause to be securely affixed to a bolt through the wall over the window head inside of at least one window in each room on the third or higher floor a chain at least ten feet long, with a rope at least one inch in diameter fastened thereto long enough to reach the ground, or such other appliances as may be approved by fire or county commissioners. When third or higher floor is not subdivided into rooms, at least six windows on a floor must be provided with chains and ropes or other appliances. Whenever rooms on third or higher floor have more than three windows each, at least one out of three windows must have chain and rope, and these articles must be kept in an unlocked box near the inside sill of the window.

In all places mentioned in this act hallways and head and foot of stairways must be kept lighted at night with a red lamp, and alarms and gongs, easy of access and ready for use, shall be kept in such buildings. Penalty for violation is a fine up to \$300 and imprisonment from one to twelve months, and in case of fire resulting in death or personal injury, persons or corporations violating act are liable additionally in an action for damages. (Public Laws of 1885, No. 41, p. 65, June 3.)

Fire escapes provided by act of June 11, 1879, Public Law 128, for buildings in which employes are usually employed in the third or higher stories, must be independent of internal stairways, number and location to be governed by the size of the building and the number of inmates, and arranged so as to be readily accessible, safe, and adequate. They must consist of outside, open, iron stairway of not more than 45° slant, with steps not less than six inches wide and twenty-four inches long. Buildings accommodating more than 100 persons shall have two such escapes, and more if necessary. Owners may put up other escapes subject to official approval. Fire marshals and fire commissioners, or, where there are none, school directors, must examine fire escapes, and, if approved, give certificates. Violation of act punishable by fine up to \$300 and by imprisonment from one to two months. In case of fire, in the absence of escapes, resulting in death or personal injury, violators subject to imprisonment from six to twelve months and civilly liable in an action for damages.

Act not to apply to approved fire escapes now in use. (Public Laws of 1885, No. 42, p. 68, June 3.)

No boy under 12 years shall be employed in any bituminous coal mine, or under fourteen years in any anthracite coal mine, nor shall women or girls of any age be employed in either class of mines, or in or about the outside workings. No boy under 10 years shall be employed in or about the outside workings of a bituminous mine, or under 12, of an anthracite mine; but all such boys, women, or girls may be employed in office and clerical work. (Public Laws of 1885, No. 169, p. 217, June 30; No. 170, p. 233, June 30.)

Persons controlling bituminous coal mines must keep at mouth of drift, shaft, or slope, or wherever mine inspector directs, properly-constructed stretchers to carry away injured employes. (Public Laws of 1885, No. 169, p. 217.)

Engineer of breaker engine in anthracite mines must be 18 years old. No person under 15 years of age shall be appointed to oil machinery. (Public Laws of 1885, No. 170, p. 229, June 30.)

Persons controlling anthracite coal mines must keep at each mine an ambulance, and at least two stretchers, to carry injured persons to their homes. Each ambulance must have easy springs, windows on sides or ends, large enough for two persons with two attendants, and provided with mattresses or bedding or roller frames, with sufficient covering. Stretchers must be of such material and construction as to afford the greatest comfort to injured persons. Injured persons unable to walk must be sent home or to a hospital. No ambulance necessary if workmen live within radius of a half mile. Two mines within one mile of each other, connected by telegraph or telephone, need have but one ambulance, nor need any mine employing less than twenty persons. Conveyance of injured persons may be by railroad, but under cover if more convenient. (Public Laws of 1885, No. 170, p. 230, June 30.)

No. 169, Public Laws of 1885, page 205, June 30, relates to bituminous coal mines, and provides for the lives, health, safety, and welfare of persons employed therein. No. 170, Public Laws of 1885, page 218, June 30, provides for the health and safety of persons employed in and about anthracite coal mines and the protection and preservation of property connected therewith, and relates to mines employing more than ten persons. Specific sections of both acts are quoted above. They are similar to acts of other states elsewhere mentioned, and contain provisions, besides those quoted, relating to arbitration between mine inspectors and owners; boards of examiners of candidates for inspectors; regulations for boilers; deaths in or about mines; inspection districts; qualifications, appointments, duties of inspectors; qualifications and duties of foremen; injunctions to restrain workings of mine; regulations for machinery; maps, plans, and surveys of mines; openings, outlets, and slopes; props and timbers for miners; notices in case of accidents or deaths; ventilation and regulations connected therewith; making openings on adjoining lands; wash houses for miners, etc.

By Public Laws of 1872, p. 1175, Brightley's Purdon's Digest, 442, it is made lawful for employes, as individuals or members of associations, to refuse to work whenever, in their opinion, wages are insufficient or treatment offensive or further labor would be contrary to the rules of their society, without subjecting them to prosecution for perjury; but act not to apply to members of organizations not in strict conformity to Federal or state constitutions, nor does it prevent prosecution of those who hinder others from working or seeking work.

By Public Laws of 1849, p. 672, Brightley's Purdon's Digest, 771, ten hours are made a day's work in cotton, woollen, silk, paper, bagging, and flax factories, and no minor under 13 to be employed therein under penalty of \$50 each offense—half to person suing and half to county. No minor between 13 and 16 to be employed more than nine months in the year, or who has not attended school three consecutive months in same year. Parents and guardians permitting employment of children contrary to act, forfeit \$50 as above.

By Public Laws of 1855, p. 472, no operative under 21 can be employed more than ten

hours a day or sixty hours a week in cotton, silk, woollen, flax, bagging, or paper factory. Persons so employing forfeit \$50 to school fund.

By Public Laws of 1879, p. 128, Brightley's Purdon's Digest, 813, every building of any kind in which work is done above the second story must have permanent, safe, external means of escape in case of fire satisfactory to fire commissioners and fire marshal of the district. In case of injury or death an action accrues for damages and a penalty is incurred of \$300.

By Public Laws of 1868, p. 99, Brightley's Purdon's Digest, 1009, eight hours between rising and setting of the sun are made a day's work in the absence of an agreement for longer time, which any person may make. Act does not apply to farm labor or service by the year, month, or week.

RHODE ISLAND.

No child under 10 years of age shall be employed in any manufacturing or mechanical establishment; parent or guardian permitting employment being liable to a fine up to \$20.

No child under 14 years of age shall be so employed except during the vacation of the public schools, unless during preceding year he has attended some public or private day school for at least twelve weeks, nor shall such employment continue unless there shall be a like attendance each year; but no child can be employed who does not present certificate of such attendance made by or under direction of the school committee. Owners, superintendents, and overseers must require and keep on file certificates of place and date of birth of children under 15 years of age, as nearly accurate as may be, so long as employment of such children continues, and the amount of school attendance for the year preceding employment. The form of the certificate is determined by the state board of education, and it is made by the school committee.

Owner, superintendent, or overseer employing, or parent or guardian permitting employment of children under 14 years of age, contrary to this act, are liable to a fine up to \$20.

Truant officers, at least once every school term, must visit all establishments to see if the law be carried out. They must demand the names of children under 15 years of age employed in their towns and require certificates to be produced.

Owner, superintendent, or overseer permitting employment of children under 15 years of age while public schools are in session, who cannot write their names, ages, and places of residence, are liable to a fine up to \$20. (Chapter 363, Acts of January, 1883.)

Town and city councils may make, regulate, and pass ordinances in reference to the construction and location of stairways, and the putting up of fire escapes upon buildings where workmen are employed, and provide for punishment for violation of ordinances not to exceed \$10 for each day's continuance. They may also pass ordinances and make regulations as to the construction, location, and operation of elevators and hoistways, and the approaches thereto, used for the carriage of persons and merchandise; penalty incurred for violation being \$5 for each day's continuance. (Chapter 340, Acts of January, 1883.)

By title 20, chapter 69, section 26, Public Statutes, labor performed in any manufacturing establishment and all mechanical labor during ten hours is a legal day's work, unless otherwise agreed by the parties.

By same chapter, section 23, no minor between 12 and 15 can be employed in any manufacturing establishment more than eleven hours a day, nor before 5 a. m., nor after 7.30 p. m. Violation by owner, employer, or agent of factory, or parent, or guardian of child, punished by fine of \$20 for each offense, one-half to complainant and one-half to school fund.

By title 30, chapter 141, section 8, Public Statutes, every person who alone, or in concert with others, attempts by force, violence, threats or intimidation to or does pre-

vent another from entering upon or pursuing any employment upon satisfactory terms to employé, may be fined up to \$100, or be imprisoned up to ninety days.

The statutes quoted since 1880 do not differ in very many particulars from others relating to the same subjects recently before adopted.

TENNESSEE.

An act providing for the ventilation and operation of coal mines is similar in its general tenor to those heretofore quoted. Alterations in maps are to be made by the 1st of January and July of each year. The two shafts, slopes, or outlets, must be separated by natural strata of not less than 150 feet. Ventilation to be not less than fifty-five cubic feet per second of pure air, or 3,300 cubic feet, per minute for every fifty men at work, and as much more as circumstances may require. Owners or agents must have "inside boys" to take charge of mine.

No boy under 12 years of age shall work in or enter any mine. Proof of his age must be given by certificate or otherwise before he shall be employed, and no father, or other person, shall knowingly conceal or misrepresent the age of any boy.

No person is allowed to ride on a loaded cage, and no more than ten persons at one time on any cage.

All machinery in and about mines, especially in coal breakers where boys work, must be properly fenced off, and tops of shafts must be so fenced by vertical or flat gates, covering area of shafts.

Duties of inspector to be performed by the geologist of the bureau of agricultural statistics and mines, who has his office at Chattanooga, employs such assistants as may be necessary, and is allowed yearly \$600 for salary as inspector and \$1,000 for expenses. He must examine all coal mines in the state at least once in six months. (Chapter 170, Acts of 1881, p. 234.)

The following note appears to section 2370 of the Code of 1884: "The act of 1881, chapter 170, regulating the ventilation and operation of coal mines is omitted, because it is adapted to mines entered by shafts, whereas, with a single exception, the mines in this state are drift mines."

TEXAS.

By title 9, chapter 1, article 289, Penal Code, it is made unlawful for persons to the number of three or more to assemble for the purpose of preventing any person from pursuing any labor, occupation, or employment, or to intimidate any person from following his daily vocation, or to interfere in any manner with the labor or employment of another. Persons violating are subject to a fine up to \$500, and if they cause a riot, to imprisonment from six months to one year.

VERMONT.

By section 673, Revised Laws, Acts of 1867, No. 35, it is provided that no child between 10 and 14 years of age, who has resided in the state one year, shall be employed in a mill or factory unless such child has attended a public school three months during the preceding year. A person employing a child in violation of this section shall forfeit from \$10 to \$20, one-half to go to the complainant and one-half to the town.

Section 4320 Revised Laws, acts of 1867, No. 36, provides for the punishment of owners, superintendents, or overseers of manufacturing and mechanical establishments, who knowingly employ, or permit to work, children under 10 years of age, or employ children under 15 more than ten hours a day, by a fine of \$50. Parents or guardians consenting to such employment, punishable in like manner.

Section 4226 Revised Laws, acts of 1877, No. 6, provides for the punishment of persons who threaten violence and injury to others with intent to prevent their employment

mill, manufactory, shop, quarry, mine, or railroad by imprisonment up to three months, or a fine up to \$100.

Section 4227 Revised Laws, acts of 1877, No. 6, provides for the punishment of persons who, by threats, intimidation, or force, affright, drive away, and prevent other persons from accepting, undertaking, or prosecuting such employment, with intent to prevent the prosecution of work in such mill, shop, manufactory, mine, quarry, or railroad by imprisonment up to five years, or a fine up to \$500.

WASHINGTON TERRITORY.

The act providing for the inspection and ventilation of coal mines, and securing the health and safety of miners, is much the same as those of states heretofore referred to. The inspector of mines is appointed by the governor for two years, at a yearly salary of \$1,800, to be paid, so far as it will go, out of the mining fund, which is raised by a tax of four mills a ton of coal, to be paid quarterly by operators into the territorial treasury. Workings of mines up to date to be reported every four months. Ventilation in mines worked by shaft, slope, drift, or tunnel, to be not less than 100 feet per minute per person employed, and as much more as the inspector may direct. Inspector is empowered to make all needful regulations for the security of the health and lives of miners. (Laws of 1883, p. 25.)

WEST VIRGINIA.

The act providing for the appointment of a mine inspector and the inspection of coal miners has the same general provisions as those heretofore quoted. The governor appoints a mine inspector for two years, at a yearly salary of \$1,200, and a yearly allowance of \$500 for expenses. Owners of mines employ fifteen or more men, to make map. Workings of mines up to date to be reported the 1st of January and July of each year. Inspector must make an examination once a year, or oftener, if necessary. There must be a proper and sufficient system of ventilation by pure air, so that mines shall be kept in healthy condition for men working therein.

Owner must have practical overseer, or mining boss to keep careful watch over the mines and their working, especially as to the ventilation and supports overhead. Owners, agents, lessees, or operators, being themselves competent, may be their own "mining bosses."

Inspector must make a special examination when requested by owner, operator, etc., or ten miners, and if mine be not properly drained, or ventilated, or found otherwise in bad condition, he suggests remedies, which the owner, operator, etc., must apply, subject to a fine of from \$20 to \$100. Inspector must report to the governor annually by January 1 the condition of every mine in the state in operation two months previous to the report, stating particularly the number of persons employed, the number of accidents, injuries, and deaths, if any, with suggestions as to the proper legislation necessary to remedy any defects in the law. He may be removed by the governor for any good cause. (Acts of 1883, chapter 70).

WISCONSIN.

In all manufactories, workshops, or other places used for mechanical or manufacturing purposes, the time of labor of children under the age of 18 and of women employed therein shall not exceed eight hours in one day and every stockholder, employer, director, officer, overseer, clerk, or foreman who shall compel any woman or any such child to labor exceeding eight hours or who shall permit any child under 14 years of age to labor more than ten hours in any one day in any such place, if he have control over such child sufficient to prevent it, or who shall employ at manual labor any child over 12 and under 14 years of age in any such factory or workshop for more than

seven months in any one year, is liable to a fine of from \$5 to \$50 for each offense. (Acts of 1883, chapter 135, supplement to Revised Statutes, p. 375, amending section 1728, Revised Statutes. Amendment consists in changing penalty from a forfeiture to a fine.)

Any person, persons, or body corporate owning, occupying, or controlling any factory, workshop, or structure three or more stories high, in which several persons are employed in any kind of labor on or above the third story or floor shall provide and keep connected with the same one or more good and substantial metallic fire-proof ladders, stairs, or stairways, ready for use at all times, reaching from the cornice to the ground on the outside of such building, and placed in such position as to be easy of access to the occupants of such building in case of fire, and sufficient to furnish reasonable means of escape to the persons employed therein from each and every floor and story. Failure to provide and keep such means of escape from fire punishable by fine up to \$100 or imprisonment up to three months. (Chapter 50, acts of 1885, p. 42, amending section 4575a, Revised Statutes).

Churches, public and private school houses, hotels, factories, or other manufacturing establishments hereafter constructed must have doors so hung as to swing outward or both in and out. (Chapter 190, Acts of 1885, p. 165.)

The commissioner of labor statistics, deputy, or factory inspector shall have power to enter any factory or workshop where labor is employed for the purpose of gathering facts and statistics, or of examining the means of escape from fire, and the provisions made for the health and safety of operatives therein, and in case the officer examining shall discover any violations of, or neglect to comply with, the law in respect to child labor, hours of labor for women and children, fire escapes and similar enactments now or hereafter to be made, he shall notify the owner or occupant of such factory or workshop in writing of the offense or neglect, and if such offense or neglect be not corrected or remedied within thirty days after service of the notice, he shall lodge formal complaint with the district attorney of the county in which the offense is committed or the neglect occurs, whereupon that officer shall proceed at once against offenders according to law.

Factory inspector, or other officer, may post in any factory or workshop examined by him, the laws in respect to child labor, hours of labor, fire escapes, or other matters pertaining to the health and safety of artisans, the mutilation, destruction, or removal of which is punishable by a fine of \$50 for each offense.

Commissioner of labor statistics furnishes blank forms to employers, who must fill them out under oath, and return them to commissioner within a reasonable time, to be prescribed by him. Owner, occupant, or agent, refusing to admit a bureau officer to factory or workshop, forfeits \$10 for each offense, and for neglecting to fill out blanks, swear to same, and return at proper times, \$10 for each day's delay, forfeiture suit by district attorney, upon complaint of bureau officer, or citizen, for the benefit of the school fund. (Chapter 247, Acts of 1885, p. 212, amending chapter 319, Acts of 1883.)

By section 1729, Revised Statutes, p. 504, in all engagements to labor in any manufacturing or mechanical business where there is no express contract to the contrary, a day's work shall consist of eight hours, and all engagements or contracts for labor in such cases shall be so construed; but the act does not apply to contracts for labor by the week, month, or year.

INDEX.

- Agricultural implements**, cost of production of, 92, 93.
 summary of selected occupations, 143, 168.
 all employés, by states, 220.
 with per cent., 175, 176.
- Agricultural products**, value of leading, exported from the United States, 1880-85, 249.
- Agriculture**, foreign-born engaged in, 1870 and 1880, 245.
- Alsace**, cost of spinning one pound of cotton yarn in, 182.
- Arbitration**, establishment of boards of, 274-276.
- Arms and ammunition**, cost of production of, 92, 93.
 summary of all employés, etc., by states, 220.
- Artisans' tools**, cost of production of, 92, 93.
 summary of all employés, etc., by states, 220.
- Bank of England**, contraction in circulation of the, 1846-47, 18.
- Banks**, postal, number of, in the United Kingdom, 1873-84, 84.
- Banks**, savings, depositors and deposits in, in France, 1835-83, 43.
 deposits in, in Saxony, 1845-70, 52.
 decrease in deposits in, under trustees in the United Kingdom, 1847-48, 20.
 exhibit of, in the United States, 1874-85, 75.
 number of depositors, etc., in, in Prussia, 1839-81, 51.
 under trustees in the United Kingdom, 1873-84, 84.
 1846-56, 19.
 1857-65, 22.
 1862-72, 26.
 in post-office, of the United Kingdom, 1866-72, 26.
- Belgium**, average cost of production of a ton of coal in, 141.
 earnings and expenses of wage receivers in, 423-431.
 industrial depressions in, 44-47.
 production and value of coal in, 1831-83, 47, 48.
 iron in, 1840-83, 48.
 steel in, 1840-83, 48.
 share of labor and capital in coal mining, Province of Hainault, 1860-83, 140.
- Boards of arbitration**, establishment of, 274-276.
- Boots and shoes**, cost of production of, 92-97.
 production of, in Massachusetts, 1850-85, 71.
 summary of selected occupations, 143-145, 168.
 all employés, by states, 220.
 with per cent., 176-178.
- Boxes**, summary of all employés, etc., by states, 220.
- Bricks**, cost of production of, 96, 97.
 summary of all employés, etc., by states, 220.
- Brooms**, summary of selected occupations, 145.
 all employés, by states, 220.
 with per cent., 179.
- California**, synopsis of labor legislation in, 457.
- Carpetings**, cost of production of, 96, 97.
 summary of selected occupations, 145-147, 168.
 all employés, by states, 220.
 with per cent., 179, 180.
- Carriages and wagons**, cost of production of, 96, 97.
 summary of selected occupations, 147.
 all employés, by states, 220, 221.
 with per cent., 180, 181.

- Causes of present depression, 291, 292.
 depressions as elicited by committees of Congress, 61-63.
 agents of the Bureau, 76, 78.
- Clocks and watches, cost of production of, 98, 99.
 summary of all employes, etc., by states, 221.
- Clothing, cost of production of, 98, 101.
 summary of selected occupations, 148, 160.
 all employes, by states, 221.
 with per cent., 181, 182.
- Coal, average cost of a ton of, in Belgium, 141.
 production and value of, in Belgium, 1831-83, 47, 48.
 cost of, in France, 1853-83, 135.
 yearly, in France, 1829-83, 42.
 five mines in France, 1883, 187.
 largest producing districts in France, 1883, 196.
 and value of, in Germany, 1848-82, 53.
 of anthracite, in the United States, 1882-85, 70.
 bituminous, in the United States, 1882-85, 70.
 share of labor and capital in mining, Province of Hainault, Belgium, 1860-83, 166.
- Coal, coke, and ore, cost of production of, 100-103.
 summary of selected occupations, 149, 150.
 all employes, by states, 221.
 with per cent., 182-184.
- Colorado, synopsis of labor legislation in, 487-459.
- Commercial and mercantile conditions, 273, 277.
- Connecticut, synopsis of labor legislation in, 460.
- Consuming power, crippled, 243-250.
- Contraction of credit, 276.
- Cooking and heating apparatus, cost of production of, 104, 105.
 summary of selected occupations, 150, 151.
 all employes, by states, 221.
 with per cent, 185, 186.
- Corporations, restriction of land grants to, 271.
- Cotton, employes and wages in spinning and carding in the Rhine district of Germany, 1855-85, 233, 239
 weaving, in the Rhine district of Germany, 1855-85, 240, 241.
 importations of, into the United Kingdom, 1861-3, 21.
 compressing, summary of all employes, etc., by states, 221.
 goods, analysis of labor cost of, 126-129.
 cost of production of, 104-111.
 summary of selected occupations, 151-155, 170-172.
 all employes, by states, 221.
 with per cent., 186-195.
 value of exported from Great Britain, 30.
 and cotton goods, average currency prices of, in New York, 1847-84, 74.
 manufactures, value of, of Great Britain, 30.
 yarn, analysis of cost of producing, at Oldham, England, 134.
 cost of producing, at Oldham, England, 134.
 system of payment for spinning of, at Oldham, England, 227, 228.
 cost of spinning one pound of, in Alsace, 132.
 England, 133.
 variation in market price of, in Great Britain, 1867-72, 25.
 1873-85, 31.
- Credit, contraction of, 276.
- Currency, 276.
- Dakota, synopsis of labor legislation in, 461.
- Delaware, synopsis of labor legislation in, 461.
- Depressions, modern industrial, 15, 16.
 alleged causes of, as gathered by agents of the Bureau, 76-78.
 causes of present, 291, 292.
 as elicited by committees of Congress, 61-63.
 contemporaneity and severity of, 390, 391.
 in Great Britain, 16-34.
 France, 35-48.
 Belgium, 44-48.
 Germany, 49-54.
 the United States, 1887-96, 55-64.

Depressions, remedies for, suggested, 292, 293.
as elicited by agents of the Bureau, 296, 270.
committees of Congress, 264-269.

years of, 290.

Distribution of products, 277-279.

Domestic products, export price of, in currency, 1855-85, 74, 75.

Employée, occupation of, with number and wages, by industries—

agricultural implements, 295-299.
arms and ammunition, 290.
artisans' tools, 299.
boots and shoes, 299-309.
boxes, 300, 310.
bricks, 310.
brooms, 310, 311.
carpetings, 311-315.
carriages and wagons, 315-317.
clocks and watches, 317, 318.
clothing, 318-322.
coal, coke, and ore, 322-327.
cooking and heating apparatus, 327-333.
cotton compressing, 333.
cotton goods, 333-350.
engraving and printing, 350.
food preparations, 350-354.
furniture, 354-356.
glass, 356-360.
jute goods, 360, 361.
leather, 361, 362.
linen, 362, 363.
liquors and beverages, 363, 364.
lumber, 364, 365.
machines and machinery, 365-367.
metals and metallic goods, 368-386.
musical instruments and materials, 386-388.
oils and illuminating fluids, 388.
paper, 388-391.
print works, 391, 392.
railroad construction, 392, 393.
rubber, 393.
silk, 394.
stone, 394.
tobacco, 395-399.
vessels, 399, 400.
wooden goods, 400.
woollen goods, 400-409.
miscellaneous, 410.

summary of all, with per cent.—

agricultural implements, 175, 176.
boots and shoes, 176-178.
brooms, 179.
carpetings, 179, 180.
carriages and wagons, 180, 181.
clothing, 181, 182.
coal, coke, and ore, 182-184.
cooking and heating apparatus, 185, 186.
cotton goods, 186-196.
food preparations, 196, 198.
furniture, 198, 197.
glass, 197-199.
leather, 199, 200.
liquors and beverages, 200.
machines and machinery, 200, 201.
metals and metallic goods, 201-208.
musical instruments and materials, 208.
paper, 208, 209.
print works, 210.

Employés, summary of, all, with per cent.—

- tobacco, 210-212.
- woollen goods, 212-212.
- with wages and time, by industries, 228.
- summary of all, with wages and time, by states—**
 - agricultural implements, 220.
 - arms and ammunition, 220.
 - artisans' tools, 220.
 - boots and shoes, 220.
 - boxes, 220.
 - bricks, 220.
 - brooms, 220.
 - carpetings, 220.
 - carriages and wagons, 220, 221.
 - clocks and watches, 221.
 - clothing, 221.
 - coal, coke, and ore, 221.
 - cooking and heating apparatus, 221.
 - cotton compressing, 221.
 - cotton goods, 221.
 - engraving and printing, 222.
 - food preparations, 222.
 - furniture, 222.
 - glass, 222.
 - jute goods, 222.
 - leather, 222.
 - linen, 222.
 - liquors and beverages, 222.
 - lumber, 222, 223.
 - machines and machinery, 223.
 - metals and metallic goods, 223.
 - musical instruments and materials, 223.
 - oils and illuminating fluids, 223.
 - paper, 223, 224.
 - print works, 224.
 - railroad construction, 224.
 - rubber, 224.
 - silk, 224.
 - stone, 224.
 - tobacco, 224.
 - vessels, 224.
 - wooden goods, 224, 225.
 - woollen goods, 225.
 - miscellaneous, 225.

Employers, organization of, of workmen, 226-229.

England, cost of spinning one pound of cotton yarn in, 123.

- reeled yarn in the Bolton district, 223.
- twist in the Bolton district, 221.
- weft in the Bolton district, 222.
- discounts from the lists in the Bolton district, 223.
- revolutions per spindle, etc., in the Bolton district, 223.
- earnings and expenses of wage receivers in, 431-444.
- price per yard of Leeds woollen and mixed goods, duties, etc., 251.
- wages per hour in the manufacture of machinery in Birmingham, 1835, 228.
- contraction in the circulation of the Bank of, 1846-47, 18.

Engraving and printing, summary of all employés, etc., by states, 222.

Europe, earnings and expenses of wage receivers in—

- Belgium, 422-431.
- England, 431-444.
- Germany, 444-452.
- Italy, 411-423.
- Switzerland, 452-456.

Exports and imports, value of, for the United Kingdom, 1860-84, 72.

- of merchandises of the United States, 1835-85, 71, 72.
- all, from the United States, 1860, 1870, 1875-85, 248.

Failures, number of, in the United States, and amount of liabilities, 1857-85, 67.

Food preparations, cost of production of, 110-112.

- Food preparations, summary of selected occupations, 155, 156.**
 all employ  s, by states, 222.
 with per cent., 195, 196.
- France, industrial depressions in, 85-43.**
 production, etc., of coal in, 1853-83, 135.
 yearly production of coal in, 1829-83, 42.
 production of coal in largest producing districts in, 1883, 136.
 five coal mines in, 1883, 137.
 the department of Pas-de-Calais, 1883, 136.
 illuminating gas, coke, and tar in certain departments of, 139.
 and average market price of merchant iron in, 1874-83, 41.
 yearly production of iron in, 1829-83, 42.
 production and average market price of pig-iron in, 1874-83, 41.
 cost of production, etc., of iron ore in, 1853-83, 138.
 1883, 138.
 production and average market price of steel in, 1874-83, 41.
 miles of railroads in operation and miles built each year in, 1840-84, 43.
 daily wages in Paris, 1844, 1853, 1860, 1871, 1875, 1881, and 1882, 236.
 principal cities of, not including Paris, 1853, 1857, 1871, 1875, 1881, and 1882, 237.
 depositors and deposits in savings banks in, 1835-83, 43.
 value of imports and exports for, 1860-84, 73.
- Furniture, summary of selected occupations, 156, 172.**
 all employ  s, by states, 222.
 with per cent., 196, 197.
- Gas, coke, and tar, production of, in certain departments of France, 139.**
- Georgia, synopsis of labor legislation in, 461.**
- Germany, cost of production of bar iron in Westphalia, 1878, 140.**
 production of rolled iron in Westphalia, 1878, 139.
 employ  s, and wages in weaving cotton in the Rhine district of; 1855-85, 240, 241.
 spinning and carding cotton in the Rhine district of, 1851-85, 238, 239.
 earnings and expenses of wage receivers in, 444, 452.
 yearly production and value of coal in, 1848-82, 53.
 pig-iron in, 1863-82, 56.
 industrial depressions in, 49-54.
- German Empire, miles of railroad in operation in the, 1835-81, 53.**
- Glass, cost of production of, 112, 113.**
 analysis of material cost of, 130, 131.
 summary of selected occupations, 156, 157, 172.
 all employ  s, by states, 222.
 with per cent., 197-198.
- Great Britain, wheat acreage of, 1870-84, 28.**
 average price of wheat in, 1835-39, 16.
 1846-50, 18.
 gazette prices of wheat, in 1870-84, 29.
 importation of wheat into, 1880-84, 248.
 value of cotton manufactures of, 30.
 variation in market price of cotton yarns in 1867-72, 25.
 1872-85, 31.
 value of exported cotton goods of, 30.
 land system of, 29.
 wages per hour in iron moulding in, 1883, 234, 235.
 industrial depressions in, 16-34.
- Hours of labor, reduction of and uniformity in, through organization, 237, 238.**
- Illinois, synopsis of labor legislation in, 461, 462.**
- Immigration, restriction of, 271-273.**
 into the United States, 1821-85, 245.
- Importation of wheat into Great Britain and Ireland, 1880-84, 248.**
- Imports and exports, value of, for France, 1860-84, 73.**
 the United Kingdom, 1860-84, 73.
 United States, 1860-84, 73.
 of merchandise of the United States, 1863-85, 71, 72.
 for the United Kingdom, 1860-84, 73.
 of merchandise of the United States, 1835-85, 71, 72.
 all, from the United States, 1860, 1870, 1875-85, 248.
- Indiana, synopsis of labor legislation in, 462-464.**
- Industries, occupations, with number and wages of employ  s in various, 295-410.**
 summary of all employ  s, with wages and time, by, 226.

- Iowa**, synopsis of labor legislation in, 464.
- Iron**, production and value of, in Belgium, 1844-83, 48.
 yearly production of, in France, 1829-83, 42.
 bar, cost of production of, in Westphalia, Germany, 1878, 140.
 pig, average monthly prices for, at Philadelphia, 1870-75, 66.
 yearly production of, according to fuel used in the United States, 1870-85, 66.
 rolled, production of, in Westphalia, Germany, 1878, 139.
 ore, cost of production, etc., of, in France, 1853-88, 138.
 1883, 138.
 moulding, wages per hour in, in Great Britain, 1885, 234, 235.
- Ireland**, importation of wheat into, 1880-84, 248.
- Italy**, average run of wages in, 1885, for various occupations, 421.
 earnings and expenses of wage receivers in, 411-423.
 prices of commodities in, in 1885, 421.
 taxes and tariffs in, 422.
- Joint stock companies**, number of, registered in the United Kingdom, 1878-84, 33.
- Jute goods**, cost of production of, 113.
 summary of all employés, etc., by states, 222.
- Kansas**, synopsis of labor legislation in, 464, 465.
- Labor**, reduction and uniformity in hours of, through organizations, 287, 288.
- Land grants**, restriction of, to corporations, 271.
- Laws**, enactment of, to stop speculation, 273, 274.
- Leather**, cost of production of, 114, 115.
 summary of selected occupations, 158, 172.
 all employés, by states, 222.
 with per cent., 190, 200.
- Linen**, summary of all employés, etc., by states, 222.
- Liquors and beverages**, cost of production of, 114, 115.
 summary of selected occupations, 158.
 all employés, by states, 222.
 with per cent., 200.
- Locomotives**, number of, in the United States, 87.
- Lumber**, cost of production of, 114, 115.
 summary of all employés, etc., by states, 222, 223.
- Machinery**, displacement of muscular labor by, in the manufacture of agricultural implements, 81.
 arms and ammunition, 81.
 bricks, 81.
 boots and shoes, 81-82.
 brooms, 82.
 carriages and wagons, 82.
 carpets, 82-83.
 clothing, 83.
 cotton goods, 82.
 flour, 83.
 furniture, 84.
 glass, 84.
 leather, 84.
 lumber, 84.
 machines and machinery, 84.
 metals and metallic goods, 84.
 musical instruments, 84.
 mining, 85.
 oil, 85.
 paper, 85.
 pottery, 86.
 railroad supplies, 86.
 rubber boots and shoes, 86.
 saws, 86.
 silk, 86.
 soap, 86.
 tobacco, 86.
 trunks, 86.
 vessels, 86.
 wine, 86.
 wooden goods, 86.
 woollen goods, 86, 87.

- Machinery**, wages per hour in the manufacture of, in Birmingham, England, 1885, 236.
- Machines and machinery**, cost of production of, 114, 118.
 summary of selected occupations, 158, 172.
 all employes, by states, 223.
 with per cent., 200, 201.
- Michigan**, synopsis of labor legislation in, 468, 469.
- Minnesota**, synopsis of labor legislation in, 469.
- Miscellaneous**, summary of all employes, etc., by states, 225.
- Missouri**, synopsis of labor legislation in, 469-471.
- Modern industrial depressions**, 15.
- Musical instruments and materials**, cost of production of, 118, 119.
 summary of selected occupations, 162, 173.
 all employes, by states, 223.
 with per cent., 206.
- Maine**, synopsis of labor legislation in, 465.
- Manufactures**, foreign-born engaged in, 1870 and 1880, 245.
- Manufacturing nations** considered as a group, 254-263.
- Maryland**, synopsis of labor legislation in, 465, 466.
- Massachusetts**, production of boots and shoes in, 1859-85, 71.
 synopsis of labor legislation in, 466-468.
- Merchant iron**, production and average market price of, in France, 1874-83, 41.
- Metals and metallic goods**, cost of production of, 116-119.
 analysis of material cost of, 128-131.
 summary of selected occupations, 159-162, 173.
 all employes, by states, 223.
 with per cent., 201-206.
- Nebraska**, synopsis of labor legislation in, 471.
- New Hampshire**, synopsis of labor legislation in, 471, 472.
- New Jersey**, synopsis of labor legislation in, 472-474.
- New Mexico Territory**, synopsis of labor legislation in, 474.
- New York**, average currency prices of cotton and cotton goods in, 1847-84, 74.
 synopsis of labor legislation in, 474, 475.
- Occupations**, summary of selected—
 agricultural implements, 143, 168.
 boots and shoes, 143-145, 168.
 brooms, 145.
 carpetings, 145-147, 168.
 carriages and wagons, 147.
 clothing, 148, 169.
 coal, coke, and ore, 149, 150.
 cooking and heating apparatus, 150, 151, 169.
 cotton goods, 151-155, 170-172.
 food preparations, 155, 156.
 furniture, 156, 172.
 glass, 156, 157, 172.
 leather, 158, 172.
 liquors and beverages, 158.
 machines and machinery, 158, 172.
 metals and metallic goods, 159-162, 173.
 musical instruments and materials, 162, 173.
 paper, 163, 173.
 print works, 163, 173.
 tobacco, 164, 173.
 woollen goods, 165-167, 174.
 with number and wages of employes, by industries, 205-410.
- Ohio**, synopsis of labor legislation in, 475-478.
- Oils and illuminating fluids**, cost of production of, 118, 119.
 summary of all employes, etc., by states, 223.
- Oldham (England)**, analysis of cost of producing cotton yarn at, 134.
 clauses of agreement between employes' and operatives' associations at, 230, 231.
 cost of producing cotton yarn at, 134.
 spinners' wages at, 1885, 229.
 increase of wages of spinners at, for quicker speed, 229.
 system of payment for spinning cotton yarn at, 227, 228.
- Oregon**, synopsis of labor legislation in, 478.

- Paper, cost of production of, 120, 121.
 summary of selected occupations, 163, 173.
 all employes, by states, 223, 224.
 with per cent., 208, 209.
- Pennsylvania, synopsis of labor legislation in, 478-482.
- Philadelphia, average monthly prices for pig-iron at, 1870-75, 69.
- Pig-iron, average price of Scotch, per ton, 1886-72, 24.
 production and average market price of, in France, 1874-88, 41.
 yearly production and value of, in Germany, 1863-82, 53.
- Postal banks, number of, in the United Kingdom, 1873-84, 34.
- Print works, cost of production of, 120, 121.
 summary of selected occupations, 163, 173.
 all employes, by states, 224.
 with per cent., 210.
- Production, cost of, of agricultural implements, 92, 93.
 arms and ammunition, 92, 93.
 artisans' tools, 92, 93.
 boots and shoes, 92-97.
 bricks, 96, 97.
 carpetings, 96, 97.
 carriages and wagons, 96, 97.
 clocks and watches, 98, 99.
 clothing, 98-101.
 coal, coke, and ore, 100-103.
 cooking and heating apparatus, 104, 105.
 cotton goods, 104-111.
 food preparations, 110-113.
 glass, 112, 113.
 jute goods, 112, 113.
 leather, 114, 115.
 liquors and beverages, 114, 115.
 lumber, 114, 115.
 machines and machinery, 114, 115.
 metals and metallic goods, 116-119.
 musical instruments, 118, 119.
 oils and illuminating fluids, 118, 119.
 paper, 120, 121.
 print works, 120, 121.
 rubber goods, 120, 121.
 silk, 120, 121.
 tobacco, 120-123.
 woollen goods, 122-125.
- Production, variation in the cost of, 90, 97.
- Products, distribution of, 277-279.
- Profit-sharing, 279-286.
- Prussia, number of depositors and amount of deposits in savings banks in, 1830-81, 51.
 number of miles of railroad in operation in, 1838-81, 54.
- Railroad construction, summary of all employes, etc., by states, 224.
- Railroads, amount invested in the, of the United Kingdom December 31, 1852, 18.
 cost per annum of operating the, of the country with steam power, 87.
 horse and man power necessary to perform the work of, 87, 88.
 miles of, in operation and miles built each year in France, 1840-84, 43.
 the United States, 1830-85, 68.
 opened in the United Kingdom, 1843-52, 18.
 1852-63, 21.
 1864-72, 25.
 1873-84, 33.
 in divisions of the United Kingdom, 1884, 33.
 Prussia, 1838-81, 54.
 operation in the German Empire, 1835-81, 53.
 speculative building of, 242, 243. ●
- Rails, iron, yearly production of, in the United States, 1874-85, 68.
 steel, yearly production of, in the United States, 1874-85, 68.
- Rates of wages, variation in the, 141, 142.
- Reeled yarn, cost of spinning, in the Bolton district, England, 232.

Remedies suggested for depressions, 292, 293.

as elicited by agents of the Bureau, 269, 270.
committees of Congress, 264-269.

Restriction of immigration, 271-273.

Rhode Island, synopsis of labor legislation in, 482, 483.

Rubber goods, cost of production of, 120, 121.

summary of all employés, etc., by states, 224.

Savings banks, depositors and deposits in, under trustees, in the United Kingdom, 1846-56, 19.

number of depositors, etc., in, under trustees, in the United Kingdom, 1857-65, 22.
1866-72, 26.
1873-84, 34.

decrease in deposits in, under trustees, in the United Kingdom, 1847-48, 20.

number of depositors, etc., in post-office, of the United Kingdom, 1862-72, 26.

in France, 1835-83, 43.

in Prussia, 1839-81, 51.

in Saxony, 1845-70, 52.

exhibit of, in the United States, 1874-85, 75.

Saxony, classes of depositors in savings banks in, 1845-81, 52.

deposits in savings banks in, 1845-70, 52.

Silk, cost of production of, 120, 121.

summary of all employés, etc., by states, 224.

Speculation, enactment of laws to stop, 273, 274.

Steel, production and value of, in Belgium, 1840-83, 48.

yearly production of, in France, 1829-83, 42.

production and average market price of, in France, 1874-83, 41.

Bessemer, yearly production of, in the United States, 1874-85, 67.

Stone, summary of all employés, etc., by states, 224.

Switzerland, earnings and expenses of wage-receivers in, 452-456.

Tariff inequalities, 250-252.

Tennessee, synopsis of labor legislation in, 483.

Texas, synopsis of labor legislation in, 483.

Tobacco, cost of production of, 120-123.

summary of selected occupations, 164, 173.

all employés, by states, 224.

with per cent., 210-213.

Twist, cost of spinning, in the Bolton district, England, 231.

Under-consumption, 243-250.

United Kingdom, amount invested in railroads in the, December 31, 1852, 18.

railroads opened in the, 1843-52, 18.

1853-63, 21.

1864-72, 25.

1873-84, 33.

miles of railroads in divisions of the, 1884, 83.

capital invested in railroads of the, December 31, 1872, 26.

depositors, etc., in savings banks under trustees in the, 1846-56, 19.

1857-65, 22.

1866-72, 26.

1873-84, 24.

decrease in deposits in savings banks under trustees in the, 1847-48, 20.

number of depositors, etc., in post-office savings banks in the, 1862-72, 26.

1873-84, 34.

joint-stock companies in the, 1866-72, 25.

number of, registered in the, 1873-84, 33.

value of imports and exports for the, 1860-84, 73.

importation of cotton into the, from the United States, 1861-63, 21.

United States, export price in currency of domestic products of the, 1855-85, 74, 75.

immigration into the, 1820-85, 245.

industrial depressions in the, 1837-86, 55-64.

1882-86, 65-76.

miles of railroad in operation and built each year in the, 1830-85, 68.

number of failures in the, and amount of liabilities, 1857-85, 67.

locomotives in the, 87.

production of anthracite coal in the, 1882-85, 70.

bituminous coal in the, 1882-85, 70.

yearly production of pig-iron, according to fuel used, in the, 1870-85, 69.

iron rails in the, 1874-85, 68.

United States, yearly production of steel rails in the, 1874-85, 68.

 Bessemer steel ingots in the, 1874-85, 67.

savings banks in the, exhibit of, 1878-85, 75.

synopsis of labor legislation in the—

California, 457.
 Colorado, 457-459.
 Connecticut, 460.
 Dakota, 461.
 Delaware, 461.
 Georgia, 461.
 Illinois, 461, 462.
 Indiana, 462-464.
 Iowa, 464.
 Kansas, 464, 465.
 Maine, 465.
 Maryland, 465, 466.
 Massachusetts, 466-468.
 Michigan, 468, 469.
 Minnesota, 469.
 Missouri, 469-471.
 Nebraska, 471.
 New Hampshire, 471, 472.
 New Jersey, 472-474.
 New Mexico Territory, 474.
 New York, 474, 475.
 Ohio, 475-478.
 Oregon, 478.
 Pennsylvania, 478-482.
 Rhode Island, 482, 483.
 Tennessee, 483.
 Texas, 483.
 Vermont, 483, 484.
 Washington Territory, 484.
 West Virginia, 484.
 Wisconsin, 484, 485.

value of imports and exports of the, 1835-85, 71, 72.

 for the, 1880-84, 73.

value of wheat exported from the, 1878-85, 249.

 leading agricultural products exported from the, 1860-85, 249.

 etc., of all products exported from the, 1860, 1870, 1875-85, 248.

Vermont, synopsis of labor legislation in, 483, 484.

Vessels, summary of all employées, etc., by states, 224.

Wages, daily, in Paris, France, 1844, 1853, 1860, 1871, 1875, 1881, and 1882, 226.

 principal cities of France, not including Paris, 1853, 1857, 1871, 1875, 1881, and 1882, 227.

 of spinners at Oldham, England, 1885, 229.

 increase of, of spinners, for quicker speed, at Oldham, England, 229.

 variation in the rates of, 141, 142.

Washington Territory, synopsis of labor legislation in, 484.

Went, cost of spinning, in the Bolton district, England, 232.

West Virginia, synopsis of labor legislation in, 484.

Wheat, average price of, in Great Britain, 1835-39, 16.

 1846-50, 18.

 gazette prices of British, 1870-84, 29.

 acreage of, in Great Britain, 1870-84, 28.

 importation of, into Great Britain and Ireland, 1880-84, 248.

 value of, exported from the United States, 1878-85, 249.

Wisconsin, synopsis of labor legislation in, 484, 485.

Wooden goods, summary of all employées, etc., by states, 224, 225.

Woollen goods, cost of production of, 122-125.

 summary of selected occupations, 165-167, 174.

 all employées, by states, 225.

 with per cent., 213-219.

Woollen and mixed goods, price of, Leeds (England), duties, etc., 251.

Workmen, organization of, of employers, 286-289.





